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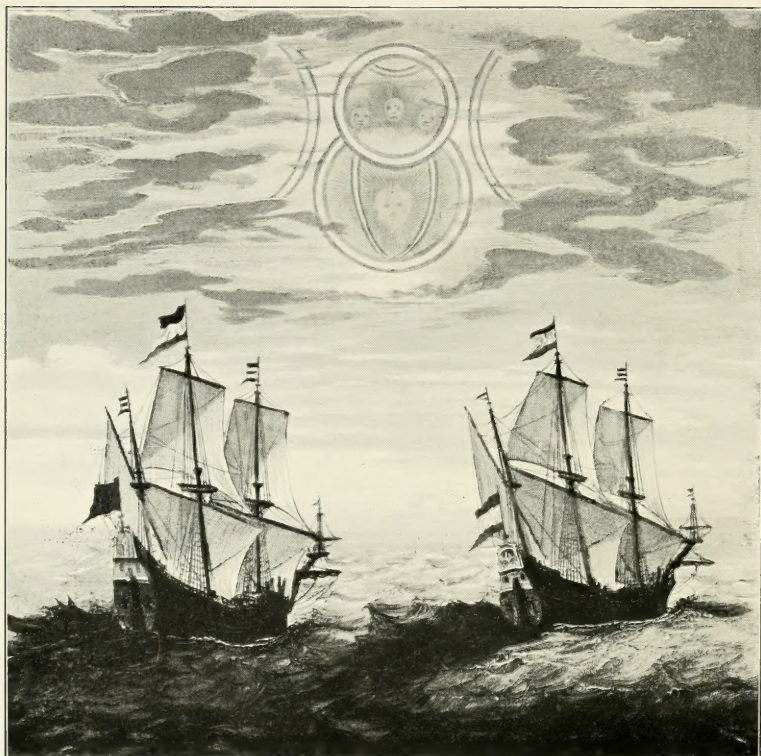
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Two Spitsbergen Whalers, from a coloured print in Blaeu's Atlas Major.



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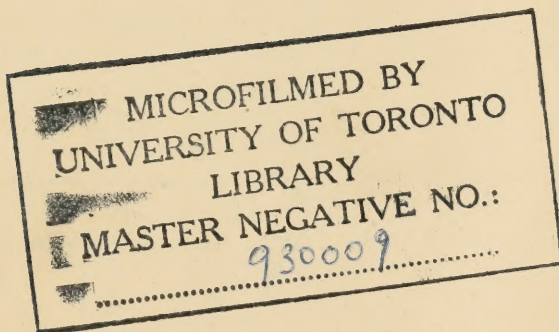
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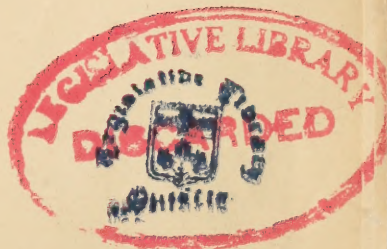
A HISTORY OF SPITSBERGEN FROM ITS DISCOVERY
IN 1596 TO THE BEGINNING OF THE SCIENTIFIC
EXPLORATION OF THE COUNTRY

Voyages
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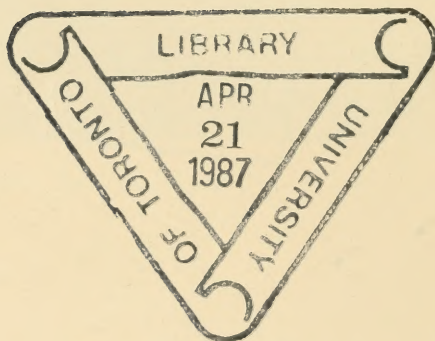
BY
SIR MARTIN CONWAY



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1906



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THIS BOOK
IS DEDICATED TO

SIR CLEMENTS R. MARKHAM, K.C.B.

PRESIDENT OF THE ROYAL GEOGRAPHICAL SOCIETY 1893-1905
WHOSE SUGGESTION INSPIRED AND WHOSE
ENCOURAGEMENT HELPED THE JOURNEYS
AND RESEARCHES UPON WHICH
IT IS BASED.

PREFACE.

THE proper function of a modern preface, it has been said, is to save reviewers trouble. In the case of a volume containing some history of a country which never had any inhabitants, constructed out of scattered references in state papers and the miscellaneous records of industrial voyages, a preface of that kind may also be helpful to a reader, who either lacks the time or the inclination to make close acquaintance with the whole book.

Let me then first appeal to reviewers and all readers alike henceforward to spell the name of the country correctly. Spitsbergen is the only correct spelling; Spitzbergen is a relatively modern blunder. The name is Dutch, not German. The second 's' asserts and commemorates the nationality of the discoverer.

In publishing this volume I am at length fulfilling a pledge given nine years ago in the book describing my first Spitsbergen journey of 1896. The preliminary studies made for that and for my second journey in the far North provided me with a considerable amount of unpublished materials for Arctic History which it seemed proper to bring together in a form convenient for reference. The story of Spitsbergen exploration, like any other matter into which a student is led to make research, presently began to

prove attractive, so that I was led on to treat as matter for serious historical investigation what was begun as the by-play of an explorer's preparatory studies.

It would have been easy to fashion the materials, here brought together, into a popular narrative of adventure. If the negotiations and the geographical questions had been omitted and the romantic elements of the story had been set in the weird and wonderful landscapes of the country, the general reader might have found the resulting volume more entertaining than the one now in his hands. But it occurred to me that by putting on record all the materials I have been able to gather together, I should rather facilitate than prevent the production of such a book. It even seems possible that some of our modern adventure-loving novelists may here find the materials for a pleasant romance. The scene of it might be placed in Smeerenburg in its great days, when women also spent their summers in that Arctic settlement in the pursuit of their avocations. Not impossibly, amongst the whalers who frequented Smeerenburg, there were some who had been on Barents' vessel of discovery. Thus a tale might be contrived, in which all the most romantic events could be strung together, from the days of the discovery down to those of Van der Brugge's dramatic wintering, including the fights and rivalries between English, Dutch, and French, as well as the disputes between the Londoners and the men of Hull.

Failing the appearance of such a book, the general reader will find that, if he scans the narrative portions of the first ten or twelve chapters, and then turns to those dealing with the doings and sufferings of the Russian Trappers, his

thirst for tales of adventure will obtain some satisfaction. Pellham's account of the first English wintering in Spitsbergen may be commended as an admirable piece of literature, worthy of the times of Milton.

Students of local history at Hull, Yarmouth, Bristol, York, and Whitby will find in my pages some matters that may be of interest to them. Hull in particular is closely connected with the early history of Spitsbergen exploration. The name of Thomas Marmaduke, a really great Arctic navigator, deserves to be remembered there with honour.

Most of the more strictly historical parts of this book have been published from time to time in papers contributed to the *Geographical Journal*. They are reprinted here with the additions and corrections suggested by further research. I have to thank the Council of the Royal Geographical Society for permitting the use of the blocks for illustrations, especially for those reproducing rare old maps which they had photographed for me, as well as for contributing the type-setting of all the pages in small print at the end of the volume which were at one time intended to be published by the Society as an extra publication.

During the nine years over which my researches have been scattered, I have been enabled at different times to pursue them in Paris, Amsterdam, the Hague, Zaanland, and elsewhere. The London Record Office was searched as carefully as my little leisure permitted, and many new facts were yielded by that exhaustless storehouse. To those who aided me in my work I owe hearty thanks. Monsieur Charles Rabot in Paris again evinced

the ready helpfulness he has so often shown before. At Amsterdam I was beholden to Jhr. B. W. F. van Riemsdijk, Director of the Rijks Museum, who put me on the track of several valuable pieces of information. At Zaandijk, Mr G. J. Honig, himself a descendant of Arctic navigators of the 17th century, also gave me valuable assistance, and I owe to him three of the most important illustrations in this book. To Dr Nathorst and Baron Gerard De Geer of Stockholm I am also indebted, as well as to the late Baron Nordenskiöld. My obligations to Sir Clements R. Markham are recorded on the dedicatory page above. Mr James Lamont has earned my gratitude by permitting me to reproduce two illustrations from his most interesting book *Yachting in the Arctic Seas* (London, 1876), whilst I am under deep obligation to Captain A. Mostyn Field, R.N., F.R.S., Hydrographer to the Admiralty, for allowing me the use of a transfer from the Admiralty chart and permission to make necessary changes in the naming of various points, as explained in the concluding pages of this volume. Finally, I have for the third time to thank the Syndics of the Cambridge University Press for giving publicity to my work.

MARTIN CONWAY.

HORNTON HOUSE, KENSINGTON,
March, 1906.

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NO MAN'S LAND.

CHAPTER I.

INTRODUCTORY.

IN the following chapters I propose to relate the story of the succession of events recorded to have happened in and on the coasts of Spitsbergen since its discovery in 1596. They will be found more numerous, more varied, and often more dramatic than the reader may be prepared to expect. Spitsbergen has never been an inhabited country, and therefore, in a sense, can have no true history of its own, but for a portion of every year since early in the 17th century it has been the scene of various industries, which have attracted in their turn to its inhospitable though beautiful shores innumerable visitors. It is their fortunes, purposes, and adventures that are to be considered. They were of many nations and came up for many reasons. It will not be possible entirely to exclude from notice the home circumstances that led them to set forth, nor the international rivalries and collisions that resulted from their activity; but the endeavour will be made to reduce these extraneous matters to a minimum and to confine attention as closely as may be to what actually took place in and about Spitsbergen itself.

It is almost impossible to believe that, before 1596, no human being ever set eyes on Spitsbergen. Such bold navigators as discovered Iceland and Greenland are not unlikely to have ventured northward; if they did so venture and came to the Arctic archipelago, some 300 miles north of the North Cape, they must have perceived that the character of the land was such as to be entirely

valueless to them, and they doubtless brought home such an account of it as would be merged swiftly in myth and fable. Our remote forefathers regarded the universe as consisting of the world in which men lived and the Other World, the abode of superhuman beings. The edge of habitable country was the border of this Other World, whereof all manner of strange tales were told and partly believed. Ranges of snowy mountains, for instance, were, and to backward mountain peoples still are, the dwelling-place of fairies, demons, ghosts, and what-not. Devils have only recently been driven from the Matterhorn; perhaps some still linger there. In the Hindu Kush all manner of strange fairies still abide above the snow-line. Similar traditions are found all over the globe. The Other World stands very near to them in the minds of simple folk and is a very material place.

The Northern Ocean and whatever lands there might be within it belonged to this Other World, which some people thought of as the home of the dead. It was an ocean, sluggish, stagnant, and hard for rowers to move, which even the winds could not raise, and where the light of the setting sun lingers on till dawn, quenching the light of the stars; and the sound of the sun's rising could be heard, and the forms of the horses that drew his chariot and the glory about his head could be seen. "Only thus far," says Tacitus, "does the world extend." Homer, too, sang of the isle Aææan, "where is the dwelling-place of Dawn and her dancing-grounds, and the land of sun-rising"; and he told of the land of the Cimmerians "shrouded in fog and cloud, where the shining sun never looks down with his rays, neither when he climbs the starry heaven nor when he returns earthward from on high, but deadly night is spread over wretched men."

Like myths were sung by the Norsemen in early Sagas, not without increase of detail as the centuries advanced. Some believed there were lands in the far north joining Siberia to Greenland by unbroken country. Two brothers of the Venetian family of the Zeni were said to have made, in 1387, a voyage to Iceland and Greenland. They pretended to have brought home with them a remarkable chart, which is believed to represent the knowledge of

those regions attained by Scandinavian travellers¹. On this chart Engroneland stretches very far to the east, and this was why both Barents and Hudson, not knowing that Spitsbergen was an island, believed it to be a part of Greenland, and perhaps also connected with Novaja Zemlja. In Gerardus Mercator's map of 1538 "*Groelandia*" is represented as a peninsula depending from a polar continent, continuous with Asia, but later on this land area was cut up by narrow sounds or rivers. Thus, on Mercator's later maps, four great streams start from an imaginary *Rupes nigra et altissima* at the pole and flow to the four points of the compass, dividing the polar land into quarters. According to the legend on the map, the quarter north of Scandinavia was inhabited by "Pygmies, people with long feet, and Screlingers."

The Russian trappers who visited Spitsbergen in the 18th and 19th centuries preserved a number of legends whereof but few have been written down. It was their custom on arrival at the south coast, near a rocky cliff (probably on Edge Island) said to present a striking resemblance to a man's profile, to land on the shore and kill a male reindeer, whose body they cast on to this strange cliff. This was the story they used to tell in explanation of their act.

"There once lived a Norwegian prince who, weary of governing and of honours, betook himself to dark Spitsbergen, so as to occupy himself there, in solitude, with magic and the black arts. He took with him, on his ship, a hundred pair of reindeer, and a beautiful maiden of 15 years whom he thought to wed. The Spirit of the Mountain, whom the trappers named 'The Spitsbergen Dog,' tracked down with his dog's nose the beautiful maiden in the rock-palace of the prince, and determined to carry her off. He knew that she walked out in the evening with her lover, to collect various mosses and herbs, which, doubtless, the latter used in his magical experiments. He also knew the prince to be a skilful magician, who would not allow him to carry off the maiden before his very eyes. So this Spitsbergen dog resorted to cunning. He

¹ The chart and the account of the journey were published at Venice in 1558, and attracted great attention.

transformed himself into a white bear, and lay on an ice floe, awaiting the hour when the maiden should come down to the seashore to search for mussels and stones. He did not have to lie in wait long for his prey. The unsuspecting maiden descended the mountain which led to the sea, and the bear seized her, and carried her, unharmed, to one of the most distant caves of the island.

"The Norwegian prince, filled with wrath at the loss of the only living thing that was dear to him, and despairing of finding his beloved one by natural means, consulted his books of magic, and summoned to his aid obedient spirits, to reveal to him the prison-house of the unfortunate maiden. But all that he could learn was, that the maiden was shut up in a mountain on the south coast of the island, the outline of which was like the profile of a man. But the south coast was extensive—where should he find such a mountain?

"The inconsolable prince wandered about under the rocky cliffs, and filled the island with his lamentations. One summer's evening, as the snow-covered summits of the mountains were illumined by the rays of the setting sun¹, he espied, in a cleft of the rocks, a human figure. He hurried quickly forward, believing that he should soon discover the place of flight of his lost one; and had only to stretch out his hand to her, when suddenly she jumped like a chamois on to the southern projection of the cliff. He followed, but she fled before him, until at last she halted on one of the mountains. The prince rushed after her, and wanted to seize her, when before him, instead of the maiden, there stood a male reindeer, which looked at him, and beat his horns against the rocks. The prince magician understood matters now. He looked up to the summit of the mountain, and recognised plainly upon it the form of a man's profile. He stood long at the foot of the mountain, sighing, until a stone from the rocks fell, and crushed him to death. Since that time, the trappers have called this rock 'the hatless lout's head,' but out of gratitude for the reindeer which the prince had brought to the island, they kill, every time they set foot in Spitsbergen,

¹ This shows that the legend must have arisen south of the Arctic Circle.

a male of these animals, as an expiatory sacrifice, as it were, with which to propitiate the Spitsbergen dog, and restrain him from malicious tricks."

Another legend was told by the Russian trappers to account for the presence of reindeer in Spitsbergen.

"Long ago, the son of a Norwegian king, wishing to become possessed of the island, sent thither several ships, whose crews were to colonise this extensive, but wild and unpeopled, land. On these ships, the first reindeer were brought to Spitsbergen. The colonists perished one after the other, being unable to resist the tendency to sleep which scurvy infallibly occasions. Only eight men survived, and these made superhuman efforts to return home, and landed at Tromsøe, where they made known to their prince the failure of their undertaking. From that time, no one has attempted to settle in Spitsbergen."

If there had been an efficient quartermaster-general for the fourth Crusade perhaps Spitsbergen would not have been discovered in 1596. Owing to inefficient organisation that crusading force came under the control of Venice and was by her directed against Constantinople instead of the Saracens. A fatal blow was thus dealt, not to the Crescent but to Europe's chief bulwark against Islam. The Eastern Empire was undermined and its overthrow by the Turks two centuries later was the direct result. The Ottoman conquest of Constantinople split asunder the ancient trade-routes between east and west, and led to the era of exploration. New ways to the Indies had to be found. Vasco da Gama's discovery of the route round the Cape was the solution of the problem set by the fall of Constantinople.

But the Portuguese had no intention of sharing with the whole western world the potentiality of wealth which they thus obtained. They made a monopoly of their oriental trade and closed it for a time against all competitors. Only by trading with Portugal could foreigners trade with the east. Hence arose in other and especially in northern countries the strong desire to find some alternative route to India and Cathay.

In 1497 the Cabots, sailing from England in search of a sea-route westward to China, blundered up against and

thus discovered the North American continent. Next year Sebastian Cabot sailed again, not to explore the obstructive land but to find a way past it to the north. His example was frequently followed during the 16th century, so that the north-west passage became famous as a goal of discovery. After many years spent in the service of Spain, Sebastian Cabot in 1548 again entered English employ. Up to that time the commerce of England had been controlled by the Hanseatic League, whose policy it was to prevent any direct trade between Europe and the north, save that which came through the recognised markets. It was owing to this prohibition, which they were able to enforce, that so little was known in the rest of the world about Scandinavian discoveries in the northern seas. It was Sebastian Cabot who incited the merchants of London to shake off this Hanseatic bondage and to push forward boldly for a share in the growing commerce of the world. The north-west passage had not been discovered; he now suggested that an effort should be made to find a way by the north-east, above Norway and Asia, to China.

At Cabot's instigation the Company of Merchant Adventurers was founded and, in 1553, three ships, under the command of Sir Hugh Willoughby and Richard Chancellor, were sent forth by them to search for the north-east passage. Willoughby discovered Novaja Zemlja and attempted to winter in Lapland but perished together with the crews of two of the ships. Chancellor, more fortunate, found the White Sea and penetrated to somewhere near the mouth of the Dwina, whence he travelled overland to Moscow, obtained from the Tsar a grant of trading privileges for his Company, and returned to England. The north-east passage was not revealed, but the result of this journey was to inaugurate trade between England and the White Sea, which proved very profitable to London merchants.

The instructions to Willoughby and Chancellor, drawn up by Sebastian Cabot, contain the following important passage¹:

"Item, that the marchants and other skilful persons in writing shall daily write, describe, and put in memoire the navigation of every day and night, with

¹ Hakluyt I. p. 226.

the points and observations of the lands, tides, elements, altitude of the sunne, course of the moon and starres, and the same so noted by the order of the master and pilot of every ship to be put in writing, the captains generall assembling the masters together once every week (if winde and weather shall serve) to confesse all the observations and notes of the said ships, to the intent it may appear wherein the notes do agree, and wherein they dissent, and upon good debatement, deliberation, and conclusion determined, to put the same into a common ledger, to remain as record for the company."

This was the origin of the *log-book* which thenceforward became customary amongst English and Dutch navigators.

The *log-books* of navigators from the time of Willoughby are our authorities for the history of discovery. Patriots such as Hakluyt and Purchas made it their business to obtain as many of these records as they could and to print them for the public benefit. Hakluyt's work, says Sir Clements Markham, "gave a stimulus to colonial and to maritime enterprise, and it inspired our literature. Shakespeare owed much to Hakluyt's *Principal Navigations*: Milton owed much more¹."

In 1555 the "Merchant Adventurers" obtained a charter of incorporation and in 1566 an Act of Parliament, in which they are styled "the Fellowship of English Merchants for the Discovery of New Trades," but they are better known as the Muscovy or Russia Company, under which title we shall presently hear a good deal about them. In 1556 they sent Stephen Burrough, who had been master of Chancellor's ship, to search again for the north-east passage. He forced his way into the Kara Sea, found it full of ice, and returned. Attempts to establish an overland trade-route from North Russia to China having failed, the Pet and Jackman Expedition was sent out in 1580. It was equally unsuccessful in crossing the Kara Sea, but it appears that in 1584 another vessel sent by the Russia Company actually sailed to the mouth of the Obi, where she was shipwrecked and her crew were murdered by the Samo-yeds.

The Muscovy Company's trade with St Nicholas and the White Sea prospered and gave employment to ten or twelve ships yearly².

¹ Address on the Jubilee of the Hakluyt Society, *Geog. Journal*, Feb. 1897, p. 172.

² See Hamel, *Tradescant der Aeltere*, 1618, in *Russland* (St Petersburg Academy, *Rec. des Actes*, 1847, p. 85).

In a letter of 20th November, 1595, Francis Cherry, writing to Sir Robert Cecil, whose father was a member of the original Company before its reconstitution, speaks of himself as "having been brought up a long time in Russia, chiefly in the Emperor's Court, and by experience learned the depth of the trade." He goes on to mention the chief goods imported, to wit "tallow, wax, flax, train-oil, buff-hides, cowhides, cordage, and hemp." He lays special emphasis on the cordage, a trade which he has greatly developed, very important to the Queen's navy. "The most adventure is borne by himself and other young men, who do hazard largely, and in a manner depend and lay thereon all our substance¹."

Next year we find Cherry and the Muscovy Merchants petitioning the Queen for £9,254. 8s. 0d. payment due to them for cordage (cables, cablets, and cable yarn) imported by them from Russia and taken for the Navy. They refer to cordage similarly supplied the previous year and "cordage bespoke next year²." Two more letters press for this money. Another of 8th May, 1597, proposes to import 3,000 quarters of wheat which have been contracted for with the Emperor of Russia. In November Cherry demands payment of £13,922. 15s. 2d. for the former and another lot of cordage, payment for which is 22 months overdue! He says that he has orders for Russian cordage from the King of Spain and the Earl of Nottingham. "Before I took upon me the trade to Russia," he writes (5th December, 1597), "there never came above £2,000 worth of cordage a year, and now for £14,000 or £15,000 yearly, and not the like cordage in Europe to be had."

A trade that could stand such dilatory payments must have been very profitable. In the earliest years of the Company, rivals were stimulated to interlope into the monopoly. English interlopers from the north country were the first, for in those days the Government was always liable to give advantages to London men, before the folks of Hull or Yarmouth had a chance. Then the Dutch put in their oar. They began to interlope in 1565, when an

¹ Historical MSS., Calendar of the Hatfield House MSS. pt. v. p. 462.

² Hatfield MSS. VI. p. 511 *et seq.*

Enkhuizen ship founded a rival trading station at Kola on the White Sea. Dutch activity in the north was doubtless quickened by the King of Spain's prohibition (in 1584) of trade between the Netherlands and Portugal. At this time, in fact, the foundation was laid of that maritime rivalry between Dutch and English, which endured for two centuries and whose first ill-tempered manifestation occurred in the waters of Spitsbergen.

Throughout the Middle Ages, and especially in the fifteenth century, Flanders and its neighbourhood had been the head-quarters of North European commerce and manufacture. The weavers of Bruges and Ghent were masters of the magic which transmuted the contents of the English Woolsack into Golden Fleeces. The land trade-route from Venice led to Antwerp, where met the two streams of commerce from north and south. Thus population and civilization waxed in this favoured region. The religious troubles of the sixteenth century ruined Flemish trade. The Spanish Fury destroyed Antwerp. All the best and most active merchants and craftsmen emigrated into Holland, and created there such pressure of energy that new outlets for it had to be found. Among the emigrants was Balthasar Moucheron, who settled at Middelburg in Zeeland, and is almost to be regarded as the father of Dutch commerce. His ships were the first North Cape interlopers. He was chief supporter of Barents' three famous expeditions, which Gerrit De Veer described.

Oliver Brunel, a native of Brussels, was another religious refugee. He was the first to make, on behalf of Holland, personal investigations on the spot into the conditions and requirements of the Russian trade. The Dutch trading establishment was in consequence moved to a harbour in the neighbourhood of St Michael's monastery, and the town of Archangel was founded and rapidly increased, so that the English were obliged to move their quarters to the same place.

Now the Dutch in their turn desired to find the north-east passage. In 1584 Moucheron sent Brunel on the quest, but he failed to enter the Kara Sea and his ship was wrecked. In 1594 a more important expedition was set forth by Moucheron's initiative. It consisted of three

ships and a fishing-boat, whereof one, the *Mercury*, was owned in Amsterdam and was commanded by William Barents. Another, belonging to Enkhuizen, and likewise named the *Mercury*, carried, as supercargo, the writer Van Linschoten. The Amsterdam ship was intended to sail round the north of Novaja Zemlja, the others were to sail south. By good luck Barents easily reached Cape Nassau, but was unable to advance beyond the Orange Islands, near the extreme north point of Novaja Zemlja. This is the first voyage described in the book of Gerrit De Veer. Linschoten wrote a separate account¹.

In the following year, 1595, a fleet of seven well-equipped vessels was sent out by the same adventurers, with others joined to them, which, it was hoped, would reach China and establish a trade with that country. Of this fleet Barents was chief pilot, whilst Linschoten and another went as chief commissioners on behalf of the Dutch government. The vessels reached Novaja Zemlja, but the Kara Sea was so full of ice that they could not cross it, so they eventually returned to Holland.

It appears that on every ship a detailed journal was kept "separately and without communication with the others." Linschoten's account was published with that of the previous expedition. A separate account by Gerrit De Veer forms the second part of his well-known book.

The failure of this enterprise sufficed to prevent the Government from assisting to set forth any expedition in 1596. But the geographer Plantius and Barents still maintained that a way to the east might be found round the north of Novaja Zemlja. The confidence was infectious. Merchants came forward with funds yet once more, and the famous expedition of Barents, Heemskerck, and Rijp was sent out, which discovered Spitsbergen and wintered for the first time on record in any very high latitude.

¹ *Voyagie ofte Schipvaert van Ian Huyghen van Linschoten van by Noorden om langes Noorwegen, de Noortcaep etc.... tot voorby de Revier Oby..... Anno 1594 ende 1595.* Ghedruct tot Franeker by Gerard Ketel, 1601. Fol. It was reprinted at Amsterdam in 1624, not to mention translations, later editions, abstracts, etc.

CHAPTER II.

HOW SPITSBERGEN WAS DISCOVERED.

ON the 18th of May, 1596, two Dutch ships sailed from Vlieland near Amsterdam on a voyage destined to be famous in the annals of adventure and discovery¹. In one ship Willem Barendszoon² was chief pilot; the captain was Jacob Heemskerke Hendickszoon, proudly described on his monument as “the man who ever steered his way through ice and iron.” In the other, Jan Corneliszoon Rijp of Enkhuizen was captain and supercargo, Arend Martenszoon of Amsterdam pilot. The chief honour of the voyage has always been given to Barents, but Heemskerk should not be forgotten, for he was a great sailor. He led the Dutch fleet to victory at the Battle of Gibraltar in 1607, where he met his death. His monument stands by one of the central pillars of the Oude Kerk in Amsterdam. On the 9th of June the two ships made Bear Island, and the following day eight men landed from each ship, Barents and Rijp being of the number. Next day again “going on land, wee found great store of sea-mewes eggcs upon the shoare, and in that island wee were in great danger of our lives: for that going up a great hill of snowe, when wee should come down againe, we thought wee should all have broken our neckes, it was so steep but wee sate upon the snowe (*ons naers*) and slidde downe, which was very

¹ The authorities for this voyage are an extract from Barents' own log, printed in Fessel Gerrits' *Histoire du pays nommé Spitsberghe*, translated in the Hakluyt Society's *Three Voyages of W. Barents* (1867), p. xvii., and De Veer's Journal of the voyage, translated in the same book, p. 70; see also De Jonge's *Opkomst*, etc. i. pp. 23-26, and S. Muller's *Geschiedenis der Noordsche Compagnie*, p. 43, note. The course of the ships is marked on Barents' own chart, which was engraved in 1598.

² The name is usually written Barents in English books.

dangerous for us to breake both our armes and legges, for that at the foote of the hill there was many rockes, which wee were likely to have fallen upon, yet by Gods help wee got safely down againe. Meane time Willem Barendsz sate in the boate, and sawe us slide downe, and was in greater feare than wee to behold us in that danger...

"The 12th of June in the morning, wee saw a white beare, which wee rowed after with our boate, thinking to cast a roape about her necke; but when we were neare her, shee was so great that wee durst not doe it, but rowed backe again to our shippe to fetch more men and our armes, and so made to her againe with muskets, hargubushes, halbertes, and hatchets, John Cornellysons men comming also with their boate to helpe us. And so being well furnished of men and weapons, wee rowed with both our boates unto the beare, and fought with her while foure glasses were runne out (two hours), for our weapons could doe her little hurt; and amongst the rest of the blowes that we gave her, one of our men stroke her into the backe with an axe, which stucke fast in her backe, and yet she swomme away with it; but wee rowed after her, and at last wee cut her head in sunder with an axe, wherewith she dyed; and then we brought her into John Cornelysons shippe, where wee fleaed her, and found her skinne to be twelve foote long: which done, wee ate some of her flesh; but wee brookt it not well. This island wee called the Beare Island."

They sailed from Bear Island on the 13th in a northerly direction. At noon on the 14th they fancied they could see land to the north but were not certain. At noon next day they were in lat. $78^{\circ} 15' N.$; that is to say, off the mouth of Ice Sound but probably some way out to sea. On the 16th they met the ice-pack north of Spitsbergen and sailed along it eastwards for 44 miles (N.E. and S.E.). At noon on June 17th, in lat. $80^{\circ} 10'$ steering S.S.W. they came in sight of land which was visible for about 32 to 36 miles trending almost from west to east. "It was high land and entirely covered with snow." Undoubtedly the north coast of Spitsbergen between Hakluyt's Headland and the mouth of Liefde Bay was what they

saw and this was the memorable day of the island's discovery, though De Veer makes the 19th the date of this event. On the 18th they were in lat. 80° N. They sailed through ice westwards along the land till noon on the 20th. On the 19th they were in lat. $79^{\circ} 49'$ according to De Veer. At noon on the 20th the western point of the land lay S.S.W. 20 miles distant. They sailed towards it and "came close to a large bay (Red Bay) which extended into the land towards the south." They made another attempt to get away to the north-west but were driven back by the ice and so, late on the 21st, both ships came to anchor at the mouth of Fair Haven. "At the east point of the mouth," says Barents, "was a rock, which was moreover split, a very good landmark"; he obviously refers to Cloven Cliff. "There was also a small island or rock, about $1\frac{1}{2}$ (? miles) from that eastern one. On the west point also, was a rock, very near." It would therefore appear that he anchored between Cloven Cliff and Vogelsang. Here, or hereabouts, in lat. $79^{\circ} 50'$ Barents set up a post with the arms of the Dutch upon it. The post remained standing till 1612 when the English carried it away¹.

Next day they "took in ballast of 7 boatsful of stones, thus much because our ship was little ballasted." A great fight with a bear followed and then they explored Fair Haven with a boat and found the Norway Islands and several good anchorages. On one island, where they landed, they "found many red geese-egges, which we saw sitting upon their nests, and drave them from them, and they flying away cryed 'red, red, red': and as they sate we killed one goose dead with a stone, which we drest and eate, and at least 60 egges, that we tooke with us aboard the shippe.... These were *Rotgansen* (Bernacle Geese), such as come into Holland about Weiringen (near the Texel), and every yeere are there taken in abundance, but till this time it was never knowne where they hatched their egges; so that some men have taken upon them to write that they grow upon trees in Scotland that hang over the water, and such egges as fall from them downe into the water become yong geese and swimme away; but those that fall upon the land

¹ The fact is mentioned in a resolution of the States General, 16 April, 1615.

burst in sunder and come to nothing : but this is now found to be contrary, and it is not to be wondered at that no man could tell where they breed their egges, for no man that ever we knew had ever beene under 80 degrees."

Next day, the 23rd, the weather being very clear, they went out of the bay and rounded Hakluyt's Headland "to seek how far the coast could extend itself." They "could not perceive the end of the land, which extended itself S. $\frac{1}{2}$ E., 28 miles, as far as a high and mountainous cape [Knotty Point?], which looked as if it were an island." They returned and cast anchor in the same place and at midnight found by observation that they were in lat. $79^{\circ} 42'$, which is the latitude of Danes Island¹.

On the 24th they sailed southward down the west coast or wall of the island, as De Veer well calls it. "The land," says Barents, "was for the greatest part broken, rather high, and consisted only of mountains and pointed hills ; for which reason we gave it the name of 'Spitsbergen².'" Captain Rijp, giving evidence before the magistrates of Delft, said, "We gave to that land the name of Spitsbergen, for the great and high points that were on it." They did not however conceive it to be an island but only part of Greenland, as De Veer expressly states.

On the 25th they entered and cast anchor in a bay, which must have been Magdalena Bay, for it was 40 miles north of Vogelhoek. They rowed up the bay, on the south side of which was a low cape, the English burying-ground of later days, with a cove behind it "having shelter from all winds," and "a little creek like a harbour." They landed and found two walrus' tusks "that waighed sixe pound," and many smaller tusks, so they named the inlet Tusk Bay. On this occasion they appear to have taken formal possession of the land for Holland and to have deposited among some rocks a record of their visit enclosed in a box³.

On the 26th they sailed into the north end of Foreland Sound, but found that it was blocked at some distance in by

¹ $79^{\circ} 42'$, says De Veer, who gives the elements of the calculation. Barents' log says $79^{\circ} 24'$, but this is doubtless a misprint.

² Not Spitzbergen, as it is commonly but incorrectly spelt. The name is Dutch, from *Spits*, "a point."

³ See the affidavits printed by Muller, *Gesch. der N. Co.* p. 362.

the banks afterwards called "the Barr." There was ice on the shallows so they were forced to turn back, for which reason they called the sound Keerwyck¹. On Barents' map this bank is marked as an isthmus joining the Foreland to the mainland, but from his log it is evident that he knew there was water over the bank. The next day was calm, but on the 28th they emerged again from the sound and rounded the north end of the Foreland to which they gave the name Vogelhoek, from the great number of birds about, which flew against the sails. This day they sailed southward along the west coast of the Foreland, "which was very mountainous and sharp with a beautiful shore." At noon the latitude was observed to be $78^{\circ} 20'$. Later they passed the mouth of Ice Sound, "a large bay, which extended itself in the land E.N.E., and was on both sides high and mountainous"; afterwards they saw Bell Sound, "in which was much ice under the land." These are the bays named Grooten Inwyck, and Inwyck on Barents' chart. They continued southward along the land till at noon on the 29th they were in lat. $76^{\circ} 50' N$. The ice now drove them out to sea. At noon on the 30th they were in lat. $70^{\circ} N$. and on the 1st of July they sighted Bear Island once more.

It is evident that between Barents and Rijp there had been frequent differences of opinion as to the course to be steered. Rijp was always for going further west, Barents hankered after the east. Their differences now culminated, and they decided to separate and go their own ways. Barents sailed to Novaja Zemlja, where, after sailing up the west coast and rounding the north-east point, he was shut in by ice at Ice Haven on the 27th of August and forced to winter. On the 30th the ship was nipped in the ice. "Whereby all that was about and in it began to crack, so that it seemed to burst in a 100 peeces, which was most fearfull both to see and heare, and made all the haire of our heads to rise upright with feare." They now began carrying things ashore, where they set up a tent, and presently, having found much drift-wood, determined

¹ See A. Cz. Herman's affidavit of 1630, printed in Muller's *Geschiedenis der N. Co.* p. 363.

to build a hut. The carpenter died on September 23rd, leaving them sixteen in number, whereof some were always sick. By the end of October the house was finished and they had moved into it.

During the winter only one man died, though many suffered from scurvy, but the fresh meat they secured by trapping foxes saved them. When daylight returned they "made (3 April) a staff to plaie at Colfe¹, thereby to stretch our jointes"; and it is again recorded (May 15) that they went out "to exercise their bodies with running, walking, playing at colfe and other exercises, thereby to stirre their ioynnts and make them nymble." They had many contests with bears, and once, like so many other early arctic travellers, they ate a bear's liver which made them all sick so that their skins peeled off. All through the month of May they waited, hoping to be able to bring their ship away, but it was not possible; so they made preparations for leaving in two open boats, and Barents, who was very ill with scurvy wrote a letter, which he put into a bandoleer and hanged up in the chimney, stating briefly the nature of their doings and sufferings in that place.

At length, on the 13th of June, they drew Barents and another very sick man to the shore and embarked in the two open boats, 15 men in all. They rowed round the N.E. point of Novaja Zemlja and began making their way with great difficulty down the west coast. On the 20th, near Cape Comfort (E. of Cape Nassau), "Claes Andriezoon began to be extreme sick, whereby we perceived that he would not live long, and the chief boateson came into our scute and told us in what case he was, and that he could not long continue alive; whereupon Willem Barents spake and said, 'Methinks with mee too it will not last long'; and yet we did not judge Willem Barents to be so sicke, for we sat talking one with the other, and spake of many things, and Willem Barents looked at my little chart,

¹ It may interest golfers to be reminded that many representations of their game exist in works of art by Dutch painters of the 17th century. I remember two, both dated 1654. One is a drawing of golf-players by Jan van de Capelle, in a sketch-book (which also contains drawings by Rembrandt and other contemporary artists), which belonged to Madame Kneppelhout in 1894. The other is an etching by Rembrandt (B. 125), representing the sport of "Kolef." The game is depicted in countless paintings of the same period.

which I had made touching our voyage and we had some discussion about it ; at last he laid away the card and spake unto me, saying, 'Gerrit, give me some drinke'; and he had no sooner drunke but he was taken with so sodain a qualm, that he turned his eies in his head and died presently, and we had no time to call the maister out of the other scute to speak unto him ; and so he died before Claes Andriesz, who died shortly after him. The death of Willem Barents put us in no small discomfort, as being the chiefe guide and onely pilot on whom we reposed our selves ; but we could not strive against God, and therefore we must of force be content." Thus died the discoverer of Spitsbergen, and leader of the first polar expedition that wintered so far north. A third man died a few days later.

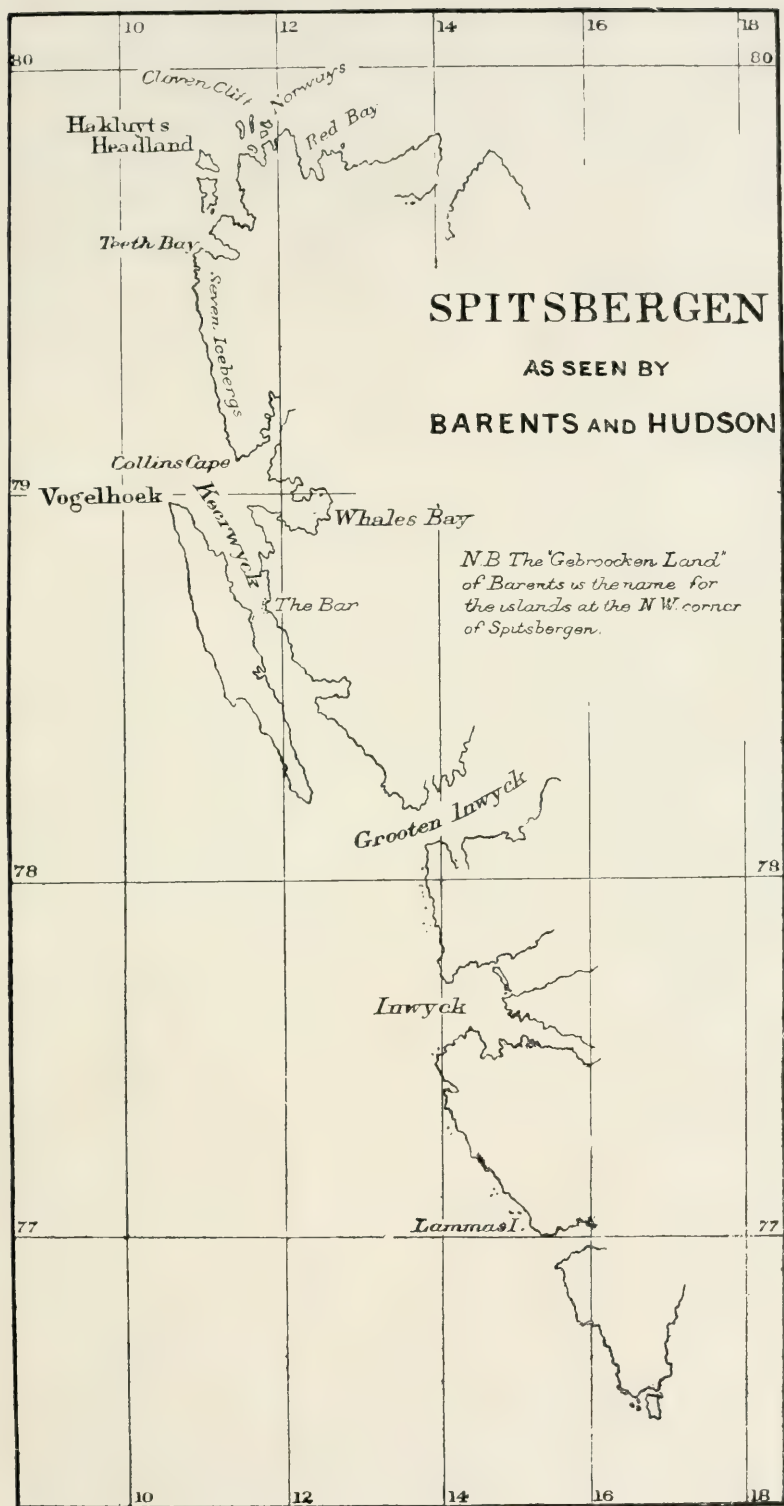
With incredible toil the weak survivors, all more or less scurvy-stricken, laboured through the ice, till the 19th, when they came into open water near Cross Island. Sailing now more quickly southward they met two Russian Lodyas on the 28th and obtained a little relief from them. Shortly afterwards they found scurvy-grass, which did them all incredible good, but the scurvy was not entirely cured till much later. Sailing straight across the sea they reached the mouth of the Petchora on August 4th. On September 2nd, after voyaging 1,600 miles in their open boats and undergoing innumerable hardships, being often brought to the verge of starvation, they joined three Dutch ships at Kola on the White Sea, whereof, by a strange chance, one was under command of the selfsame Jan Cornelisz. Rijp from whom they had parted thirteen months before at Bear Island.

Of Rijp's doings, after parting from Barents, we possess, unfortunately, the most meagre accounts. Hessel Gerrits in his *Histoire du pays nommé Spitsberghe* only says, "Rijp again set sail (*i.e.* from Bear Island) towards the north, and came after marvellous accidents from ice and winds, to the spot where they had anchored for the first time in 80° (*i.e.* to Fair Haven). He had also been up again to Vogelhoek, and he returned from thence with the intention of rejoining Barents." Pontanus in his *History of Amsterdam* says (p. 168) "that Rijp pretended that they ought to retrace their steps till 80°." Rijp himself in his

affidavit only says that "they returned to the same place where they had been at first," and that, from Bear Island, they "took their course to the north round" Spitsbergen. There is every reason to believe that they merely retraced their former course and made no new discoveries, the ice-pack near Fair Haven keeping them back. If any discoveries of importance had been made they would assuredly have been included in the chart of 1598, whereas nothing is there indicated and Rijp's returning ship is merely depicted in the neighbourhood of the Faroe Islands. De Veer says that Rijp left them to "saile unto 80 degrees againe; for hee was of opinion that there he should finde a passage through, on the east-side of the land that lay under 80 degrees"—that is to say that he did not intend to explore eastward till he had reached Fair Haven.

From Kola, Rijp carried the twelve survivors safely home to Holland. They entered the Maas on the 29th of October, rowed to Delft, then to the Hague, and from thence to Haarlem, "and upon the 1st of November about noone got to Amsterdam, in the same clothes that we ware in Nova Zembla, with our caps furd with white foxes skins. ...Many men woundred to see us, as having esteemed us long before that to have bin dead and rotten. The newes thereof being spread abroad in the towne, it was also carried to the Princen Hof, where the noble lords, the Chancellor and the Ambassador from the most illustrious King of Denmark, Norway, Goths, and Wends, were then at table. For the which cause we were presently fetcht thither by the Schout and two of the lords of the town, and there in the presence of the said lord ambassador and the burger masters we made rehearsall of our voyages and adventures."

This memorable and tragic expedition became famous in the annals of Dutch navigation and is still rightly regarded as one of the glories of Holland's heroic days. Hendrik Tollens wrote a poem upon it. De Veer's account of it was widely circulated, translated into many languages, and has been frequently reprinted, twice in English during the nineteenth century. Not till the year 1870 was Novaja Zemlja circumnavigated; Captain Johannesen accomplished this feat and visited the east coast of the island, when he



approached but did not find Barents' winter quarters. In 1871 another Norwegian, Captain Elling Carlsen of Hammerfest, took his sloop into Barents' Ice Haven on September 7th. On the 9th he discovered the ruins of the hut (16 metres long by 10 metres broad), and brought away from it a number of relics, which had been buried and preserved under a thick accumulation of ice. Measures were successfully taken by the Dutch Government to obtain possession of these treasures. They were presented to Holland by their purchaser¹. Captain Gundersen was the next to visit Ice Haven, in 1875. He found and brought away some old charts and a MS. translation of the narrative of Pet and Jackman's voyage of 1580. Finally, in 1876, Mr Charles Gardiner sailed in his yacht *Glow-worm* through Matoschkinshar to Ice Haven and made a thorough examination of the ruins of Barents' hut. He brought back 112 more relics which he generously presented to the Dutch Government². All these objects were brought together and form the interesting collection now exhibited in the Museum at Amsterdam.

¹ J. K. J. De Jonge: *Nova Zembla, De Voorwerpen door de Nederlandsche Zeevaarders na hunne overwintering aldaar in 1597, achtergelaten en in 1871, door Kapitein Carlsen teruggevonden*. The Hague, 1873, 8vo.

² J. K. J. De Jonge: *Nova Zembla, De Voorwerpen door de Nederlandsche Zeevaarders na hunne overwintering, op Nowaja-Zemlja bij hun vertrek in 1597 achtergelaten en in 1876, door Chas. Gardiner, Esq., aldaar teruggevonden* The Hague, 1877, 8vo.

CHAPTER III.

WALRUS HUNTING AND TENTATIVE EXPEDITIONS.

WHEN the trade of the Muscovy Company with the White Sea began to suffer from Dutch competition, the idea not unnaturally arose that, as the result of fresh exploration, some new and valuable trade by way of the northern regions, whether across to Cathay or elsewhere, might be created and the monopoly of it preserved by its discoverers. Accordingly, in 1603, a ship named the *Grace*, whereof Stephen Bennet was master, was ordered to go as usual to Kola, but, after completing her trade there "to proceed upon some discoverie" before returning home. This vessel on August 16th came in sight of Bear Island, which Barents had discovered and named in 1596. Bennet must have been aware of this discovery, but the account of his voyage says nothing of it and implies that the island was now seen for the first time. On the 17th they landed and saw foxes but returned aboard, without any profit; "only one of our men tooke up a piece of lead, and, I (Gorden) found a piece of a morse's tooth, by which we perceived that the sea morses (walrus) did use thither."

Next year (1604) the *Speed*, under the same master, after visiting Lapland, went again to Bear Island, which was now named after Sir Francis Cherry the chief adventurer of the voyage. Master and crew were very "green" about arctic matters. The multitude of birds astonished them, and when a walrus put his head out of the water "looking earnestly at the boate," and making "an horrible noyse and roaring...they in the boate thought he would have sunke it." A few days later, they found the walrus herd on the

N.E. shore of the island. "It seemed very strange to us to see such a multitude of monsters of the sea lye like hogges upon heapes: in the end wee shot at them, not knowing whether they could runne swiftly or seize upon us or no....Some, when they were wounded in the flesh, would but looke up and lye downe againe. Some were killed with the first shot; and some would goe into the sea with five or sixe shot; they are of such an incredible strength. When all our shot and powder was spent, wee would blow their eyes out with a little pease shot, and then come on the blind side of them, and with our carpenter's axe cleave their heads. But for all we could doe, of above a thousand we killed but fiteene." They cut off the heads of the unfortunate beasts and carried them aboard. On succeeding days they killed more walruses and carried off their heads likewise, as well as such tusks as they could pick up, but they made no attempt to save the blubber.

In 1605, Bennet was sent by the Muscovy Company direct to Cherry Island to spend the summer killing walruses and boiling down the blubber into oil. They now found that lances were better weapons than guns for the work they had to do. The result was that they killed abundance of morses and boiled down eleven tons of oil. The day they were going aboard ship again, all manner of things went wrong. Their boat was nearly swamped in the surf: two boys were almost hit by a falling rock: and so forth. Accordingly, they named the hill at the south of the island (whose slopes they had to climb to call for help) Mount Misery. "Likewise there is a very high mountain on the E.-S.-E. point of this Iland, which, because Master Weldon and I (J. Poole) got two foxes neere it, I called it Mount Maleperdus, alluding to the name in the merrie booke of Reinold the Fox¹."

In 1606, the voyage was repeated. They had now become so expert in walrus hunting that in six hours they killed from six to seven hundred beasts, out of which 22 tons of oil were made and three hogsheads filled with tusks.

¹ On modern maps of Bear Island the name Mount Misery is generally found attached to the hill that should be called Mount Maleperdus.

The most puzzling of all the accounts of early voyages to Spitsbergen is that which describes Hudson's voyage of 1607. The fault was probably not Hudson's for he is known to have been an accurate observer, but John Playse's. Playse (or Pleyce) was one of the ship's company, who kept a journal and seems to have copied into it extracts from Hudson's log. It is clear, however, that he either misunderstood what Hudson wrote, or altered it in the copying, for the purpose of claiming new discoveries beyond those made by Barents in 1596, as well as the attainment of a far higher latitude than was actually reached. In support of this contention I now proceed to analyze Playse's account, as printed by Purchas (Vol. III. p. 675), and reprinted by the Hakluyt Society in 1860 (*Henry Hudson the Navigator*, edited by G. M. Asher, pp. 1-22).

On May 1, 1607, the *Hopewell*, eighty tons, with Henry Hudson for master, John Colman mate, William Collins boatswain, and a crew of eight men and a boy, weighed anchor at Gravesend and sailed for the northern seas. After spending some time on the coast of Greenland, they sailed eastward for Spitsbergen, of whose discovery by Barents they were aware, and by whose chart they apparently directed their course. The claim to have independently rediscovered the island was never made by Hudson. On June 27 (p. 8), "about one or two of the clocke in the morning, we made Newland [*i.e.* Spitsbergen], being cleere weather on the sea; but the land was covered with fogge, the ice lying very thick all along the shore for 15 or 16 leagues, which we saw. Having faire wind, we coasted it in a very pleasing smooth sea, and had no ground at an hundred fathoms foure leagues from the shoare. This day at noone, wee accounted we were in 78 degrees [*i.e.* near the mouth of Ice Sound], and we stood along the shoare. This day was so foggie, that we were hardly able to see the land many times, but by our account we were neare Vogel Hooke [the north end of Prince Charles Foreland, lat. 79°]. About eight of the clocke this eevening, we purposed to shape our course from thence north-west."

They tried to get away from the land, but the ice drove them back. About midnight after the 28th they were west and in sight of Vogelhoek. On July 1 at noon (p. 10),

"wee were embayed with ice, lying between the land and us. By our observation we were in 78 degrees 42 minutes, whereby we accounted we were thwart of the great Indraught." The "great Indraught" is the "Grooten Inwyck" of Barents, the modern Ice Sound. The latitude of its mouth on Barents' chart is 78° , which is approximately correct. If they were in $78^{\circ}42'$, they must have been off Cape Sietoe of Prince Charles Foreland. "To free ourselves of the ice, we steered between the south-east and south, and to the westward, as we could have sea [*i.e.* they could not have been making rapid progress; yet] about six this evening it pleased God to give us cleere weather, and we found we were shot farre into the inlet, being almost a bay, and environed with very high mountains, with low land betweene them; wee had no ground in this bay at an hundred fathoms." The description of the bay and the depth suggests that they were inside Ice Sound, 90 miles sailing from their position at noon, which is impossible. If the position was fairly correct, as is probable, they must merely have been somewhat east of the south point of Prince Charles Foreland, but certainly not up Foreland Sound.

The log continues, "Being sure where we were, we steered away west [the natural course if they were off the mouth of Ice Sound, but an impossible course if they were in Foreland Sound], the wind at south, east and calme, and found all our ice on the northern shore, and a cleere sea to the southward."

On July 2, "the wind at north-east, a faire gale with cleere weather, the ice being to the northward off us, and the weather shore [*i.e.* land being to the northward], and an open sea to the southwards under our lee," they were outside the mouth of Ice Sound, but not yet clear of the south extremity of Prince Charles Foreland. They sailed 10 leagues to the north-west, and at noon, by observation, they were in lat. $78^{\circ}56'$, *i.e.* nearly off Vogelhoek again. On the third (at noon?) they were, by observation, in lat. $78^{\circ}33'$, *i.e.* off the middle of Prince Charles Foreland. "This day wee had our shrouds frozen; it was searching cold; we also trended the ice, not knowing whether we were cleere or not, the wind being at north. The *fourth* was very cold, and our shrouds and sayles frozen; we found

we were farre in the inlet." They accordingly stood south-south-east, south, and south-west by west, which seems to prove that they must have been at the southern entrance to Foreland Sound, up which the tide may have carried them in the fog. Such courses would not have taken them out of Ice Sound.

At twelve on July 5, "we strooke a hull, having brought ourselves neare the mouth of the inlet." On July 6 they were in the open sea, in $77^{\circ} 30'$ by observation; that is to say, off Bell Point, south of the entrance to Bell Sound. The day was clear, but nothing is said of land in sight. The 7th was again clear. They reckoned that they were in 78° , and "out of the Sacke." What is meant by the Sacke I do not know, but it cannot have been either Ice Sound, or Foreland Sound, or any other land-locked bay. The recorded latitudes prove that Hudson had not spent his time during the whole of the first week of July either in Foreland Sound or in Ice Sound, as commentators generally assume.

"Now, having the wind at north-north-east, we steered away south and by east, with purpose to fall with the southermost part of this land, which we saw; hoping by this meane, either to defray the charge of the voyage [? by discovery], or else, if it pleased God in time to give us a faire wind to the north-east, to satisfie expectation." If the intention was to sail round the south cape of Spitsbergen and then to the north-east, it was soon abandoned, for, after some hours' calm on the 8th, they "stood away north-east," and continued sailing north-east as steadily as possible during the 9th and 10th. But in the afternoon of the 10th they had to sail south-south-west out of the ice "to get more sea-roome." On July 11, "having a fresh gale of wind at south-south-east, it behoved mee¹ to change my course, and to sayle to the north-east by the souther end of New-land." Clearly here "souther" is a misprint for "norther," for they went on sailing towards the north. At noon their latitude was $79^{\circ} 17'$, and the sun on the meridian bore

¹ Passages written in the first person singular are assumed to be copied by Playse, *verbatim*, out of Hudson's own log. The whole passage relating to July 11 (p. 12) is of this character.

"south and by west, westerly," which gives the compass deviation.

They soon ran into ice again, and had to turn south once more. At noon on July 12, "by our accompt we were in 80 degrees," but this is probably an error for 79°. They continued sailing north and north-east. At midnight (p. 13), "out of the top William Collins, our boatswaine, saw the land called Newland by the Hollanders [*i.e.* Vogelhoeck¹], bearing south-south-west twelve leagues from us²." This would put them in lat. 79° 30' or less, as they generally overestimated distances. On July 13, at noon, "by observation we were in 80 degrees 23 minutes." Seeing that we know their courses from this point till next day, when they were off the mouth of Whales [King's] Bay, and that we can thus reckon back from a known position, it is demonstrably probable that for 80° 23' we should read 79° 23'.

On July 14th, "at noone, being a thicke fogge, we found ourselves neere land, bearing east off us; and running farther we found a bay [Whales Bay] open to the west and by north northerly, the bottome and sides thereof being to our sight very high and ragged land. The norther side of this bayes mouth, being high land, is a small island [really a mountain cape, Scoresby's Mitre Cape, which from the south looks like an island], the which we called Collins Cape, by the name of our boatswaine, who first saw it. In this bay we saw many whales, and one of our company having a hooke and line overboord to trie for fish, a whale came under the keele of our ship and made her held; yet by God's mercie we had no harme, but the losse of the hooke and three parts of the line. At a south-west sunne, from the north-west and by north a flood set into the bay. At the mouth of this bay we had sounding thirtie fathoms, and after six and twentie fathoms; but being farther in, we had no ground at an hundred fathoms, and therefore judged it rather a sound then a bay. Betweene this high ragged [land], in the swampes and vallies lay much snow. Heere

¹ Which throughout this log is assumed to be the most northerly point seen by Barents.

² This emphasis on the land discovered by the Hollanders is intended to prepare for a claim presently to be made for "land by us discovered," Playse's idea being that Barents only discovered as far as Vogelhoeck—an utter blunder, if not an intentional fraud.

wee found it hot. On the souther side of this bay lye three or four small islands or rockes¹. In the bottom of this bay, John Colman, my mate, and William Collins, my boatswaine, with two others of our company, went on shoare, and there they found and brought aboard a payre of morses teeth in the jaw; they likewise found whales bones, and some dosen or more of deerres hornes; they saw the footings of beasts of other sorts; they also saw rote-geese; they saw much driftwood on the shoare, and found a stream or two of fresh water. Here they found it hot on the shoare, and drank water to coole their thirst, which they also commended. Here we found the want of a better ship-boate. As they certified me, they were not on the shoare past half an houre, and among other things brought aboard a stone of the countrey. When they went from us it was calme, but presently after we had a gale of wind at north-east, which came with the flood with fogge. We plyed too and againe in the bay, waiting their coming; but after they came aboard we had the wind at east and by south a fine gale; we minding our voyage, and the time to perform it, steered away north-east and north-north-east. This night proved cleere, and we had the sunne on the meridian, on the north and by east part of the compasse; from the upper edge of the horizon, with the crosse-staffe, we found his height 10 degrees 40 minutes, without allowing any thing for the semidiameter of the sunne, or the distance off the end of the staffe from the center in the eye."

The latitude, therefore, was approximately $79^{\circ} 5'$. The latitude of the mouth of King's Bay is 79° . Moreover, King's Bay agrees with the bay described in all particulars. The sounding at its mouth is 27 fathoms, whilst within there are 250 fathoms. Near its southern shore are four or five small islands or rocks, near Coal Haven. Hudson named it Whales Bay, as we gather from a later entry (p. 20) in Playse's log, where he says (July 27), "we found the want of a good ship-boate, as once we had done before at Whales bay." The name was used in 1611 in the Muscovy Company's instructions to Thomas Edge, who was ordered to take his ship to Whales Bay, and there fish for whales, and who sailed accordingly to King's Bay.

¹ Here begins another extract from Hudson's log.

In the morning of July 15 "was very cleere weather, the sunne shining warme, but little wind at east southerly. By a south-east sunne we had brought Collins cape to beare off us south-east, and we saw the high land of Newland, that part by us discovered on our starboard, eight or ten leagues from us trending north-east and by east [really north magnetic; their bearings are frequently very wrong], and south-west and by west, eightene or twentie leagues from us to the north-east, being a very high mountaynous land, like ragged rockes with snow betweene them [the so-called Seven Icebergs, a good description]. By mine account the norther part of this land which now we saw stretched into 81 degrees." The furthest point they could possibly have seen was Hakluyt's Headland, which Edge records to have been named by Hudson on this voyage, but that is only in lat. $79^{\circ}49'$. Probably they did not at this moment see further than the point south of the entrance to Magdalena Bay. The claim to have discovered the land north of Collins Cape is as unfounded as was their claim to have reached a very high latitude.

In the morning of July 16 the weather was warm and clear. "Being runne toward the farthest part of the land by us discovered [*i.e.* to Hakluyt's Headland], which for the most part trendeth nearest hand north-east and south-west [really north and south], wee saw more land joyning to the same, trending north [really east] in our sight, by meanes of the clearnesse of the weather, stretching farre in 82 degrees and by the bowing or shewing of the sky much farther."

There is a serious blunder here. Having reached Hakluyt's Headland, they mistook the easterly trending north coast for a northward extension of the west coast, and so added on longitude to latitude. Believing, or pretending to believe, that Hakluyt's Headland was in 81° , instead of $79^{\circ}49'$, they then concluded that the land they saw stretched on northward (instead of eastward) into 82° and further. "Which when I first saw," continues Playse, now clearly quoting from Hudson, "I hoped to have had a free sea between the land and the ice, and meant to have compassed this land by the north [*i.e.* to have sailed along the north coast]. But now, finding by prooffe it was im-

possible by means of the abundance of ice compassing us about by the north and joyning to the land, and seeing God did blesse us with a faire wind to sayle by the south of this land [*i.e.* round the South Cape] to the north-east, we returned, bearing up the helme, minding to hold that part of the land which the Hollanders had discovered [*i.e.* Prince Charles Foreland and the coast below Ice Sound] in our sight; and if contrary winds should take us, to harbour there, and to trie what we could finde to the charge of our voyage, and to proceed on our discoverie as soone as God should blesse us with winde....I think this land may bee profitable to those that will adventure it. In this bay before spoken of [Whales Bay], and about this coast, we saw more abundance of seales than we had seene any time before, swimming in the water. At noone this day, having a stiffe gale of wind at north, we were thwart of Collins cape, standing in 81 degrees and a halfe."

Seeing that on the previous page (p. 15) he had recorded a very correct observation which gave $79^{\circ} 5'$ as the latitude of Collins Cape, it is evident that there must have been some jockeying of the figures here; but upon whom the responsibility should lie for the falsification it is now impossible to say. It is, at all events, certain that the most northerly point reached by Hudson was Hakluyt's Headland, and that, the year being very icy and the pack fast down on the north coast of Spitsbergen, he was unable to proceed thence to the eastward as Barents had done.

From noon on July 16, and throughout the 17th, 18th, and 19th, they proceeded southward. At eight o'clock in the morning of the 20th "wee saw land ahead of us under our lee, and to weatherward of us, distant from us 12 leagues, being part of Newland. It is very high mountainous land; the highest that we had seene until now [an incorrect observation]. As we sayled neere it, we saw a sound [Bell Sound] ahead of us, lying east and west....From eight till noone was calme. This day, by observation, we were in 77 degrees 26 minutes [the mouth of Bell Sound is $77^{\circ} 40'$]. On the norther side of the mouth of this inlet lie three ilands [really blocks of mountains divided by valleys, which would look like islands from the distance (10 leagues) they were from land], not farre the one from the other, being

very high mountainous land. The farthest of the three to the north-west [*i.e.* the block of the sea-front just south of the entrance to Ice Sound] hath four very high mounts [Mount Starashchin], like heapes of corne. That island next the inlets mouth, hath one very high mount on the souther end [true!]. Here one of our companie killed a red-billed bird."

They were still in sight of land on the 23rd and 25th, but when they sailed away west towards Greenland, meaning, as he afterwards states (p. 20), quoting from Hudson, "to have made my returne by the north of Greenland to Davis his Streights, and so for England," if there had been a passage, which of course there was not. So he sailed back westward, and on July 30 saw some part of Spitsbergen again.

"In the evening, we saw an island bearing off us north-west [*? N.E.*] from us 5 leagues, and we saw land bearing off from us 7 leagues. We had land likewise bearing off us from east-south-east to south-east and by east as we judged 10 leagues." The name Lammas Island marked on Hondius' map, which professes to embody Hudson's discoveries, probably refers to this island, though Lammas-day is not July 30, but August 1. What they saw was not an island but a mountain, for there is no island in the south of Spitsbergen that can be seen 5 leagues away—certainly not the Dun Islands, which correspond in latitude with the Lammas Island of the map. It is highly probable that they were off the mouth of Horn Sound, and that the "island" was Rotchesfell. Sailing on slowly south, they accounted that at midnight they were in lat. 76° . This must be a misprint for 77° , which agrees with their probable position. The parallel 76° runs nearly 30 miles clear south of the South Cape. The land, 10 leagues distant, "was the likeliest land that wee had seene on all parts of Newland, being playne riggie land of a meane height and not ragged, as all the rest was that we had seene this voyage, nor covered with snow." Probably this refers to the low hills and large flats that flank the coast for about 10 miles south of Horn Sound. Early on August 1 they were thwart of Bear Island. "In ranging homewards," says Thomas Edge in Purchas (III. p. 464), Hudson "discovered an island [Jan Mayen Island]

lying in seventy-one degrees, which he named Hudson's Tutches." On September 15 the *Hopewell* "arrived in Tilberie Hope in the Thames." Thus ended a voyage to which, as far as Spitsbergen at any rate is concerned, more historical importance has been attached than it deserved. No new land was discovered and no very high latitude attained. Its one important result was the observation of the number of whales frequenting Whales Bay. A comparison between Playse's log and that of Barents' companion Gerrit De Veer demonstrates the great superiority of the Dutchmen's work, both as explorers and as recorders of what they discovered.

Hudson reported to his employers how numerous were the whales, walruses, and seals, frequenting Whales Bay. The ships that were sent to Bear Island to kill walrus might evidently do better to come to this yet more northerly region. If they could bring up crews capable of killing whales, there was a probability of their making very profitable voyages. Such appears to have been Hudson's advice.

It was not, however, immediately acted upon. Next year, 1608, the *Paul* was sent to Cherry Island, with Poole again for pilot, and Thomas Edge¹ for supercargo. This was apparently Edge's first voyage to the far north which he was destined so often to revisit. According to Poole's account it seems to have been successful, but from Edge's commission of 1611 we learn that it resulted in a loss to the company, owing they say to the competition of Hull interlopers. A young walrus carried home this year reached London alive and was shown at Court "where the king and many honourable personages beheld it with admiration for the strangenesse of the same, the like whereof had never before beene seene alive in England. Not long after it fell sicke and died. As the beast in shape is very strange, so is it of strange docilitie, and apt to be taught." Live walruses have always been hard to bring to the temperate parts of Europe. I can only hear of one that ever came on its own account. That was the

¹ For biographical details about Thomas Edge see Sir Martin Conway's *Early Dutch and English Voyages to Spitsbergen* (London; Hakluyt Soc. p. xv.).

walrus of whose head Dürer made the fine drawing, now in the British Museum, dated 1521, and inscribed "The animal whose head I have drawn here was taken in the Netherlandish sea and was 12 Brabant ells long and had four feet¹." In 1613 two live walruses, cow and calf, were brought to Holland and drawn "from the life" by Hessel Gerrits, who published an engraving of them in his *Histoire du pays nommé Spitsberghe*. In recent times walruses have been brought to Europe rarely, and seldom long survived their arrival.

Two ships were told off in 1609 to go to Lapland and then on to Cherry [Bear] Island, but Poole changed the plan and took his ship direct, thus reaching Bear Island on the 8th of May. As usual they made the cove near the south point their harbour whenever the ice allowed, but the sea about the island was so infested with ice this year that it was not often possible for a ship to lie near the land. Moreover, so long as the ice packed about the coast walruses did not come ashore, but bears on the contrary were numerous. So they killed a great many bears, about which they tell several good stories, too long for quotation here². A boat's crew was, for many days, separated from its ship and had many adventures and the ships also suffered from ice-pressures. The lodes of lead-ore were again discovered, near the south cove and on the neighbouring little island, named Gull Island, whilst on the north coast they discovered coal, which burnt well. This year there were two interloping ships from Hull, Bonner being master of one, Thomas Marmaduke of the other. There was some unpleasantness between the interlopers and the company's men, but misfortunes of various kinds rendered each in turn dependent upon the others for important services. Not till the end of July were many walruses killed, but then they did pretty well. On the 10th of August the company's last ship sailed away and Bonner was left behind in possession. It is recorded that Thomas Marmaduke, in his ship the *Heartsease*, sailed this year northwards from Bear Island and "discovered" Spitsbergen. No details of this most im-

¹ W. Martin Conway, *Literary Remains of Albrecht Dürer*. Cambridge, 1889, pp. 111, 145.

² See Purchas III. 561, 562.

portant voyage are preserved¹, but it was long remembered by the people of Hull, and on it they based their claim to a share in the whale-fishery.

As Marmaduke's name will often recur it may be well to put together briefly the main facts known about him. In a list dated Sept. 1600 he is mentioned as a younger brother of the Hull Trinity House. He was probably in command of one of the Hull interlopers at Bear Island in 1608. In 1609 he went to Bear Island and Spitsbergen. In 1611 he was at Spitsbergen again and sailed along the coast killing walruses; he also salvaged the wrecks of the Muscovy Company's ships and carried their crews home. In 1612 he explored the north coast of Spitsbergen as far as Grey Hook. In 1613 and 1614 he explored for the Muscovy Company. In 1613 he visited the north coast and then went to the eastward, and it was probably he who discovered Hope Island² and other islands to the eastward. In 1614 he again went as far as Grey Hook and afterwards to the eastward. In 1617 he is mentioned as being at Bear Island and later as sailing for Hope Island. In 1619 he came into Horn Sound with his ship badly damaged by ice in trying to get east from the South Cape. This is the last mention of him. He claimed to have discovered Jan Mayen at an early date. Evidently he was one of the most active Spitsbergen explorers of the first generation. It is a pity that only these bare facts are known about him.

¹ *State Papers, Domestic*, Charles I, Vol. 497 (1643), No. 68.

² The name of his ship in 1611 and 1612 was the *Hopewell*.

CHAPTER IV.

THE FIRST HUNTING EXPEDITION TO SPITSBERGEN.

IN 1610¹ Sir Thomas Smith and the rest of the Muscovy Company again sent the *Amitie* (70 tons), with Jonas Poole as master, Nicholas Woodcock, mate, and a crew of thirteen men and a boy, to Cherry (Bear) Island. They were ordered not merely to kill walrus there, as in previous years, but to sail on northward, and search "for the liklihood of a trade or passage that way." They sailed from Blackwall on the 1st March. Without touching at Cherry Island, they came on the 6th May in sight of a mountain in the south of Spitsbergen, named by them, Muscovy Company's Mount. Sailing on, they discovered, four leagues further north, the mouth of Horn Sound, and sent a skiff ashore, which returned with a piece of reindeer horn, whence the sound was named, Horn Sound.

"I followed," says Poole, "into the said bay with the ship, but standing in I had a stiffe gale of winde off the shoare, which drave abundance of Ice out of the Sound, through the which I enforced the ship, in hope there to have found an harbour....Finding no benefit to bee had, nor haven for the ship, I stood to sea." Next day he approached and named Bell Point, "because of a hill formed like a bell on the top....To the northwards of Bell Point goes in a great Bay (Bell Sound) with two Sounds in it, the one (Sardammer Bay, Van Keulen Bay) lieth E.-S.-E., the other (Low Sound) N.-E. by E.; the last sound you can hardly discern, by reason there is a

¹ *Purchas his Pilgrimes*, London, 1625, Vol. III. Book IV. Chap. I. p. 699 *et seq.*

long Island (Axel Island) lying in the mouth of it. But the going into the said sound is on the north side, yet there is an inlet under Point Partition, but very narrow and full of rocks and an exceeding tide setteth in there,...I called the North Sound Lowe Sound. Into the bay I turned...Being neere the Point that parteth both the sounds, the winde increased with raine. Then I saw the sound frozen over from side to side, and upon the ice a beare and great store of Mohorses (walruses), but the winde blew so extreme hard, that the boat could not row to windwards, to trie if we could kill some of them." The weather was very bad, "very thick fogs with wind, frost, and snow, and cold, that I thinke they did strive here which of them should have the superioritie." The sea was full of ice, and the navigation difficult.

On the 21st Poole was off the south point of Prince Charles Foreland (which he calls Black Point Ile), whence he saw and named Ice Sound. Like Horn and Bell Sounds, it also was frozen up. Finding no shelter he continued northward, sometimes trying to fish but without success. On the 25th he sent a boat ashore at Fair Foreland; it returned laden with drift-wood and whalebone picked up from the shore. The quantity of whalebone thus obtained at different points on the coast during this voyage was very great. The crew saw many walruses and brought news that fresh water ponds and lakes on shore were unfrozen, "which putteth me in hope of a milde summer here, after so sharp a beginning as I have had, and my opinion is such (and I assure myself it is so) that a passage may bee assoone attayned this way, by the Pole, as any unknowne way whatsoever, by reason the sun doth give a great heat in this climate; and the Ice, I meane that that freezeth here, is nothing so huge as I have seene in 73 degrees."

Poole cruised about for some days between Fair Foreland and Knotty Point, as he named the cape north of Magdalena Bay, looking into and naming Close Cove (Cross Bay), Deer Sound (King's Bay), and Fowle Sound (Foreland Sound). On the 1st of June he was in Close Cove, where he found a sheltered anchorage in the west side of the sound. This was the haven now known as

Ebeltoft Haven. Poole named it Cross Road, because "upon the side of a hill, a mile to the westwards of the Road, I set up a Crosse, with a writing upon it, signifying the Day of my arrivall first in this land, by whom I was set out, and the time of my being heere." Several days were spent in this neighbourhood, and excellent sport was enjoyed. Near the road was a small rock-island, frequented by walruses. One morning Poole, after killing a bear, visited this rock to kill walruses. "As wee went by the shoare side I espied Deere, three of them I slue, and one of my company one. But when I came to the rocke, the Ice that the beasts lay on was hollow, and the rocks that was betwixt the Ice and the sea stood sloping toward the sea; the which when I saw, I determined to go aboard and let them alone, yet afterward I went on the rocke betwixt the Ice and the sea: and as I with the rest of my company were killing them, the Ice brake, and Ice and beasts slid into the sea together, and carryed one of the men with them, so that he escaped out of that danger very hardly; for besides the weight of dead Mohorses, and Ice that bruised him, the beasts that were alive strook at him in the water, and bruised him very soare. I had been in the same case, if I had not been the nimbler, and slipt on one side. I killed three morses, whose teeth I tooke off. Then I espied the Beare, which my Mate had hurt before with a shot; hee went into the sea, when hee saw the boate, where I slew him with a lance, and brought him aboard."

The abundance of animal life at that time in Spitsbergen can scarcely be exaggerated. Poole constantly records "great store of whales," but he made no attempt to slay them, for the Basques were then the only people who understood whaling. On the 5th of June, continues Poole, I "killed some fowle, which I found in great abundance: and when I was ready to go aboard, I saw fourteene Deere, at which time I spent all my powder, and shot but one shot, with the which I slue a fat buck. The same day, at a south sun, I went on land and slue two deere more. And at a South-west sun I went on land and slue a doe, and took the faune alive, and brought it aboard, but it dyed the next day. The calme continued till the sixth

day,...then I sent the skiffe to the rocke aforesaid, to see what store of morses were there; at three of the clocke they came aboard, and told me there was neere two hundred beasts. I tooke bothe the boat and the skiffe, with all my company and went to the rock, and in going thither I slue a bear: but when I came to the rocke, the beasts begun to goe into the sea, then I presently went on land, with all my company, and slue eightie beasts, whose teeth I tooke, and in going aboard slue another beare."

On the 14th of June he sailed from Cross Road and spent a day or two in the neighbourhood of Knotty Point but soon returned to Cross Road again, where one day ten bears were killed. From the 21st to the 26th Poole was cruising down and landing on the west coast of Charles Foreland, where he killed bears and reindeer and gathered a great quantity of what he calls Whales' Fins, that is to say whalebone fallen from dead whales. On the 26th he entered Ice Sound and observed Safe Haven, "but by reason of the tyde, edy-winds, I could not get into it"; so he sailed across to Green Haven (which he named) and anchored there on the 27th. Next day he stayed in the haven "and tried the beares grease to bring it into oyle, and when we were all busied, a beare came swimming over the bay, towards the ship, which I slue, and split my peece."

On July 5th he sailed, Ice Sound being still very full of ice; on the 6th he was off Low Ness in heavy weather, "abundance of ice all along the land to the Southwards of Bell Sound." He worked up and down the coast till the 17th, when he once more anchored in Cross Road, and slew a bear, capturing her two young alive. Hunting expeditions made into King's Bay (Deer Sound) were very successful and resulted moreover in the discovery of "Sea-coales, which burnt very well." These coals were doubtless obtained in what is now known as Coal Haven¹. On the 24th Poole was again in Bell Sound and "found but little ice." He sent the skiff "to seeke for a road for the

¹ On the Jurassic coal of Spitsbergen see a paper by John J. Stevenson in the *Annals of the New York Acad. of Science*, Vol. XVI. no. 4, pp. 82-95, 17 March, 1905. The coal beds at Advent Bay were inspected from an industrial point of view in 1903 and began to be worked in 1904.

ship and also for commodities." The skiff explored the channel leading into Low Sound, south of Axel Island, but found it to be "full of rockes from side to side." A sheltered harbour two leagues east of Point Partition was discovered and there the ship anchored on the 25th. This was doubtless the cove behind what is now called Eders Island in Van Keulen Bay.

On the 27th he weighed and "steered out betwixt an iland and the point where I rid." Next day, being near Ice Point, he met with much ice, "which put mee from the land," so he stood away for Cherry (Bear) Island. On the 1st of August he was still beating in the ice and "could find no end thereof, because it was so foggie, and the ice packed very close." Ultimately he got out to the westward of the ice infesting Bear Island and thereupon "determined to stand for England, as God would give me leave...The last of August I arrived at London, Blessed be God for ever and ever. Amen."

The bag made in Spitsbergen on this voyage consisted of about 120 walrus, 51 reindeer, 30 bears killed and 3 cubs taken alive, one narwhal horn and a great quantity of whalebone picked up on the shore. The blubber was carried to London in bulk and the boiling of it down into oil caused the Muscovy Company "great trouble and inconvenience." Moreover "lewd and bad people," to wit apparently some of the seamen, "imbeseled" the company's property, whalebone, walrus teeth, and the like. Nevertheless the Adventurers seem to have done pretty well. Jonas Poole gave them such an account of the "great store of whales" in the Spitsbergen bays and other resources of that land, that a larger expedition was decided on for the following year (1611).

CHAPTER V.

THE BEGINNING OF THE SPITSBERGEN WHALE-FISHERY.

OF whales and whaling much has been written and more remains to be written. In this place we can deal with neither subject at length, but only so far as the doings and adventures of man in Spitsbergen are concerned. Whales are of many kinds and sizes, but only two species interested the whalers of the old days. Those were the two important whalebone whales, *Balaena mysticetus* and *Balaena australis*, popularly called the "right whale," because they were the "right" kind for whalers to attack. As to the zoology of these and all other whales the reader is referred to my friend Mr F. E. Beddard's *Book of Whales* (Progressive Science Series, London, 1900), a work from which much of the information contained in the following pages is derived. Of the two right whales, *Balaena mysticetus* is popularly known as the Greenland whale, whilst *Balaena australis* was generally referred to in Europe as the Biscay whale. The Greenland whale seems to have confined itself to the Arctic regions and was not hunted before the days of Arctic discovery. This was the whale that was pursued near Greenland, Jan Mayen, Spitsbergen, and the North Cape. The Biscay whale frequented the wide oceans and probably was very common before man attained facility in the craft of killing it.

Whalebone (baleen) is defined in the *Century Dictionary* as "the elastic horny substance which grows in place of teeth in the upper jaw of whales of the family *Balaenidae*, forming a series of thin parallel plates from a few inches to several feet long." It serves the purpose of a filter to separate from the sea-water drawn into the beast's mouth

the tiny Pteropods and Crustacea which form its food, called by whalers "right whale feed" or "brit." The use of whalebone for the purpose of stiffening various female garments was understood at an early date. The whalebone cut from a whale's mouth was called whale's "fins" by the early Spitsbergen whalers. At the present day whalebone is said to be worth about £2,000 a ton. It was less valuable in the 17th century, but it was always sought after since whaling began.

The other chief valuable product of whales was the blubber, wherewith the body of the beast is thickly encased just below the skin. This blubber was cut off and boiled down into oil. The oil was chiefly used for soap-making, as we shall hereafter see. Its earliest use was probably for lamp-oil.

Obviously, stranded whales were the first to be utilized by man. Even now when the number of whales is so greatly reduced we hear of a stranded whale in England every few years. In old days they must have been commoner. Stranded whales on the Dutch shores are mentioned in old chronicles and records. The arrival of a whale was regarded with apprehension by the superstitious folk of those days. Twisck, the Dutch chronicler, writes that "the stranding of such monstrous beasts is usually a sign of some great event to follow¹." He generally associated it with Turkish inroads into Europe. But attention was paid to stranded whales long before his day. Thus Dürer writes in his diary for November 1520:

"At Zierikzee in Zeeland a whale has been stranded by a high tide and a gale of wind. It is much more than 100 fathoms long & no man living in Zeeland has seen one even a third as long as this. The fish cannot get off the land. The people would gladly see it gone, as they fear the great stink, for it is so large that they say it could not be cut in pieces and the blubber boiled down in half a year."

On December 9th he writes: "Early on Monday we started again by ship and went by the Veere and Zierikzee and tried to get sight of the great fish, but the tide had carried him off again."

In 1531 a whale 68 feet long and 30 feet thick was stranded near Haarlem². One was stranded in Holland in

¹ Peter Janssz. Twisck, *Chronijck van den Ondergaugh der Tyrannen*, Hoorn, 1619, 1620, 2 vols. 4to. Vol. II. p. 1727.

² Twisck, II. 1039.

1566. In 1577 a whale came up the Scheldt in July, and thirteen or fourteen others were seen off the village of Heyde in Holland on the 22nd and 23rd of November¹. A whale stranded at Sandvoort in 1594 was drawn by Goltzius. J. Matham engraved one that came ashore in 1598. In Dec. 1603 a whale was killed in the Scheldt². Esaias van der Velde engraved one lying on the beach at Noortwijk in 1614. Another was stranded between Scheveningen and Katwijk on Jan. 21st, 1617. William Buyte-wech made a drawing and an etching of it, which are in the Berlin Print-room³.

If, as seems probable, stranded whales were the first to be killed by man, the attempt may next have been made to drive or frighten them ashore, as is still done with white whales. To kill whales in the sea must have been a relatively late invention, yet it goes back to an early historical date, if it be true, as Ochther, a Norwegian, told King Alfred, towards the end of the 9th century, "that he sailed along the Norway coast so far north as commonly the whale-hunters used to travel." Perhaps he was only referring to walrus-hunters. Some believe that true whaling was known in England by the year 1000; if so, it had become a lost art in the times of the Muscovy Company, with which we are now concerned.

The whalers, *par excellence*, of Europe were the men of the Bay of Biscay, especially the Basques⁴. The fishermen of Biscay and Guipuzcoa had pursued the whales that frequented their coasts from time immemorial. From St Jean de Luz to Santander whaling was the chief source of wealth. The whale finds place in local coats of arms. We read of harpoon whaling in the 11th century. Of course the use of the harpoon was no novelty. Prehistoric man took fish with harpoons before he invented hooks. The ancient Egyptians killed the hippopotamus with harpoons⁵. In the 13th century the King of Spain, in conceding privileges to

¹ Twisck, II. 1328.

² Twisck, II. 1560.

³ *Jahrb. d. k. Preuss. Kss.* 1902, pp. 114, 115.

⁴ See a monograph by M. Fischer, "Cétacées du Sud-Ouest de la France," *Actes Soc. Lim.* Bordeaux, 1881. See also Sir Clements Markham, "On the Whale Fishery of the Basque Provinces of Spain," *Proceedings of the Zoological Soc.* 1881, p. 969.

⁵ Vide Erman, *Life in Ancient Egypt*, London, 1894, p. 240.

San Sebastian and other whaling ports, retained as his share a strip of blubber from the head to the foot of every whale taken. To the present day traces of the former prevalence of the whaling industry are to be seen in the remains of "virgias" or look-out towers, whence notice of the appearance of the whales was given to the fleet of boats ready to put out after them. The numerous "look-out" points whose names remain on the old Spitsbergen maps indicate the transfer of this Biscay habit to the north. The language of whaling is full of Basque terms and names, such as "harpoon." The very by-laws of 17th century whaling were the old Basque customs stereotyped. Such was the important understanding that a "fast" fish, or one in any way in possession, whether alive or dead, is the sole property of the persons so maintaining the connexion or possession. A loose fish, alive or dead, is fair game for anyone. The custom of hoisting a flag when a fish is struck and all the whalers' peculiar ways were of Basque invention.

As the Biscay whale was hunted into scarcity along the coasts, the whalers were led to pursue their calling further out to sea. French and Spanish Basques from the ports all the way round the Biscay coast sailed boldly forth and killed whales on the coast of Iceland, Newfoundland, in the Bay of St Lawrence, and perhaps even round Greenland, before the Muscovy Company came into existence. By the end of the 16th century the Icelanders had joined them and the whale-fleet of all nations in the Atlantic waters amounted to 50 or 60 sail. In and after 1594, ships were fitted out at Bristol¹ to take part in the Cape Breton whale and walrus fishery, and the *Grace* of Bristol is recorded as having made a specially prosperous voyage. In 1598 it is stated that some adventurers of Hull sent whalers to Iceland and the North Cape and were so well rewarded that they repeated the venture in succeeding years². About the same time some Dutch ships also took part in the North

¹ In St Mary Redcliffe Church, Bristol, there is the rib of a Newfoundland whale, honourably preserved (phot. in *Social England*, Vol. II. p. 673).

² Elking's *View of the Greenland Trade and Whale Fishery*. See also Scoresby, II. 20. In Holy Trinity Church, Hull, there are interesting monuments of this period. Some are said to be to the memory of whalers, but I have not seen them.

Cape whaling, and thereby (in 1596 and later) gave rise to a correspondence between the Dutch Government and that of Denmark, which claimed a monopoly of fishing in the Norwegian Seas¹.

It is probable that Dutch and English alike in these early whaling enterprises employed Biscay harpooners whenever they attacked whales, but it is likewise possible that these early so-called whaling voyages of English and Dutch ships were really nothing more than walrus-hunting expeditions and that no true whales were hunted by them. At all events Barents and Hudson and the other Dutch and English pilots and skippers who first visited the Bear Island and Spitsbergen seas paid little attention to the whales. They do not seem to have regarded whaling as an industry likely to be attractive to the adventurers who sent them forth. It was not till the walruses had been killed out at Bear Island and till Poole in 1610 had spent a season in Spitsbergen and reported again the great quantity of whales frequenting its western bays that an experimental whaling expedition was decided on.

By that time the Muscovy Company's men were somewhat familiarised with Arctic conditions. Their original fear of walruses and bears had been overcome by experience. The hunting instinct was doubtless strong in them and they were probably eager to try issues with the largest monsters of the deep. It was, however, fully realized that without the help of Biscay experts, English fishermen were unable to attack a whale. They did not know how to set to work. If ever Englishmen had been whalers the craft was by this time forgotten. It was the same with the Dutch, the Danes, and the northern French. Each nation in turn as it began whaling did so in the first instance with Biscay help and under Biscay direction.

It seems that the Muscovy Company, when it decided to adventure on the new trade, sent Nathaniel Wright to live among the Biscay whalers at their home and to enlist a number of them for English service in Spitsbergen; or perhaps Wright was already on the spot. At all events he was employed as recruiting agent and lived in Biscay

¹ Muller, *N. Co.* p. 240 note.

fourteen years, after which time he returned to England and became "a director and adventurer in the voyage to Greenland" (*i.e.* Spitsbergen¹).

The plans for the expedition of 1611 are set forth at length in the Muscovy Company's Commissions to Jonas Poole, "grand Pilot," and Thomas Edge, factor, printed by Purchas. Two vessels were to be sent out, the *Mary Margaret* (150 tons), Steven Bennet, master, and the *Elizabeth* (50 tons) under the command of Jonas Poole, who was to pilot both vessels. The *Mary Margaret* was equipped for the whale-fishery; and by the advice of Woodcock, mate of the *Amitie* in the previous voyage, six Biscayers, "men of Saint John de Luz," who knew how to kill whales, were shipped. They were "to be used very kindly and friendly during this their voyage"; but the English sailors were to take note how the Biscayers went to work and "to observe and diligently put in practise the executing of that businesse of striking the whale as well as they," and to learn to recognise the different kinds of whales. Why Woodcock, whose advice was thus taken, was not himself employed does not appear. He took his revenge by hiring himself to and piloting an interloping ship from Hull.

Thomas Edge was sent as factor in the *Mary Margaret*, but with general charge over the cargoes in both vessels. He had already been sent twice to Bear Island by the Company. The first time (1608) the voyage failed "by reason of one Duppens going thither, together with certaine men of Hull, glutting the said place," whilst the second time was the unfavourable season of 1609. Edge is put in mind of these losses by the Company, not that he is to blame for them, but "to the intent to incourage and stirre up your minde to doe your uttermost indeavour to further the businesse in this your third employment." His Commission contains the following good advice which explorers of all times may take to heart.

¹ *Calendar of State Papers, Domestic*, 1631-33, p. 92. In the *Calendar of State Papers* the word Spitsbergen seldom occurs. Throughout the 17th and 18th centuries that country was almost always called Greenland, a fact unknown to the *Calendar* editors, who never distinguish between Spitsbergen and the real Greenland, but include both under the one name, Greenland, in the indexes.

"Inasmuch as industrie and diligence are two principall steps to atchieve great enterprises, and negligence and idlenesse are enemies to the same ; we would have you in this charge committed unto you, to imbrace the one, and to avoide the other : and to shew that example of paines taking to the rest of the company of your ship in your owne person, as well in setting them on work, as in putting your owne hand to the businesse when neede requireth, as that there be no idle time spent, but that every one be employed in some businesse or other¹."

Poole in the *Elizabeth*, was to pilot both ships to Whales Bay, a general name for Close Cove, Deer Sound (King's Bay), and Sir Thomas Smith Bay (Foreland Sound). There he was to stay "the killing of a whale, or two or three, for your better experience hereafter to expedite that businesse," and then to go northward for discovery. For, says his Commission, "we are desirous not only to discover farther to the north along the said land"—*i.e.* Spitsbergen, north of Hakluyt's Headland—"to find whether the same be an Iland or a Mayne, and which way the same doth trend either to the eastward or to the westward of the pole, as also whether the same be inhabited by any people, or whether there be an open sea further northward then hath beene alreadie discovered." In his exploration Poole was to pick up whalebone and to kill walruses, and when the time came for a return he was, if possible, to rejoin the *Mary Margaret*. They were to boil their blubber down either on Spitsbergen or Bear Island before sailing home, and to this end they took out the necessary coppers, barrels, etc. These coppers were, in fact, the forerunners of the whaling establishments or cookerries which sprang up on the coast of Spitsbergen a year or two later, and in the case of Smeerenburg, grew almost to the dimensions of a town.

Finally, says the Commission, "for the avoyding of an objection heretofore used, that the want of sufficient victuals hath beene the cause of the overthrow of the voyages by speedier returne home then otherwise they would, wee have thought fit to set downe the quantitie of victuals delivered aboard your ship," which were estimated as suffi-

¹ *Purchas his Pilgrimes*, Vol. III. p. 710.



cient to last for seven or eight months. Besides "beef, biscuit, fish, cheese, butter, oyle, peas, oat-meal, and candles," they include "14 tunnes of beer, 30 gallons of Aquavita^e, and 20 gallons of vinegar."

The expedition thus elaborately prepared proved a disastrous failure. The ships sailed from Blackwall on the 7th of April, called at Bear Island on the 13th of May, and anchored in Cross Road on the 29th of the same month. Cross Road (Ebeltoft Haven) was in fact the first centre of the whale-fishery and the earliest English harbour in Spitsbergen. It is curious that its very name should have been forgotten (or rather transferred to the larger Close Cove in which it lay) so that Nordenskiöld thought the haven nameless and christened it anew after a member of his own party. Here is certainly an instance where the old name should be revived. Poole and Edge remained in the road till the 16th of June, setting up their "shalops" or whale-boats and ranging the coast. Ice then drove them to sea and sunk one of the shallops. Poole now sailed westward along the edge of the pack 120 leagues, and reckoned that he must be near the part of Greenland named by Hudson Hold-with-Hope. He "saw abundance of whales by the sides of the ice." Thence he sailed east and made Bear Island on the 29th. On July 12th he killed about 200 walruses there. Eleven days were spent skinning and flensing them. On the 25th, seeing men on Bear Island, he again landed and met Edge, Bennet, and in all thirty of the *Mary Margaret's* crew, who had come in three boats from Whales Bay, where their ship had been driven ashore by ice and lost¹. They had been compelled to leave on the east shore of Whales Bay, doubtless in Cove Comfortless, the blubber of some 500 walruses recently killed which they were engaged in boiling down when the accident happened. Two other shallops, containing the remainder of the *Mary Margaret's* crew, had started with them. As afterwards appeared, they met Marmaduke's interloping ship of Hull off Horn Sound and induced him to go back with them and salvage the cargo of the wreck.

¹ The wreck doubtless took place close to, or in, the small Cove Comfortless, now called English Bay.



Meanwhile, at Bear Island, Poole landed most of his cargo and two shallops and sailed for the wreck on the 26th. He reached Black Point, the south cape of Charles Foreland, on the 31st, and commenced sailing up Foreland Sound. But, relates Poole, "when I was almost through, and in sight of that place where the *Mary Margaret* lyeth sunke, I could not find water enough for the ship, yet was I told there was enough by divers"—*i.e.* of the *Mary Margaret's* crew—"that had gone that way in shallops. Here we stayed two dayes to buoy the channell, which is shoald and narrow, for we had at three quarters fload but eleven foot of water." This is the shallow, called the Bar, which turned Barents back in 1596. The depth at this point is almost exactly the same to-day, so that here at any rate the land has not risen in the last three centuries, unless the action of tides, storms, and ice dredges the channel and keeps it open.

On August 3rd Poole got over and anchored by the wreck and found there the ship *Hopewell* of Hull, Thomas Marmaduke being master. Nicholas Woodcock had piloted him up. It is stated that Marmaduke sailed "all along the coast" of Spitsbergen this year, but did not try to kill whales¹. Marmaduke's men had killed 130 walruses, which Poole had already located, intending to kill them for his employers. Poole and Edge now landed their caldron and blubber and set to work to boil it down into train-oil. "Wee followed our worke till the seventh of August at noone, at which time having Oyle by the ships side, we put out all the blubber which was in hold, save two tuns and a halfe, supposing the ship had balast enough in her, for there was above twelve tuns of hides, which were the chieftest cause of the losse of the ship, and nine tunnes of Oyle and above seven tunnes of ballast a hogs-head and a barrell of teeth: besides halfe a tunne of stones, all which was about nine and twentie tunne weight, and to any impartiall mans judgment, sufficient to shift a Barke of sixtie tunnes. But as the last But went out of her, the ship began to held, and withall a great many men went to leeward, there being at that time about forty aboard. Then

¹ *State Papers, Domestic*, Charles I, Vol. 497 (1643), No. 68.

the hides which lay in hold slid to leeward, and brought her altogether downe, then every man made shift to save his life, and I being farre from the hatches, could not get up so soone as others did. At which time I saw death before mine eyes two wayes; one if I stayed in hold, I was sure to be drowned: the other if I went up the hatches, I was in election to be slaine; for downe at the hatches fell hog-heads of beere and divers other things, the least of them being sufficient to beate a mans bones, and in attempting to get up, I was beaten down twice and hurt. But it was not the will of God to take my life from mee then, but to revive me, to plucke me even from the jawes of Death, and by swimming and crawling I got into the Sea cleere of the ship where a boat tooke me up, and blessed bee God, no man perished at that so dangerous an accident. We being all got into three boats, went to the Hull ship, where we found but small comfort: for Duke told us plainly, wee should not come aboard his ship and caused Billes and launces to bee brought to keepe us out. Then Master Edge and divers others desired him to let mee come aboard, which hee did, and with much adoe I got aboard, having mine head broke to the skull, and my brow that one might see the bare bones, and by mine eare I had a sore wound, like wise the ribs on my right side were all broken and sore bruised, and the collar bone of my left shoulder is broken, besides my backe was so sore, that I could not suffer any man to touch it."

Purchas omits the remainder of Jonas Poole's story, "being further accusation of Marmaduke" and inserts instead the account written by his brother Randolph Poole, from which it appears that Marmaduke did not behave so badly but took all the crew on board and such of their freight as could be saved, charging indeed five pounds a ton to carry it to Hull, as he was surely entitled to do. All indications tend to prove that Cove Comfortless was the site of this accident and was probably named in memory of it. The discoveries of the year 1611 are included in the chart drawn by the Englishman John Daniel in 1612 and reproduced by Hessel Gerrits of Amsterdam in 1613.

On August 19th Marmaduke sailed for England with 99 men on board his small ship, and on the 6th of Sep-

tember they arrived off Hull, "safely and well in body, but much distressed and impayred in our states." The only favourable result of the voyage was the fact, of which we are informed by Edge, that the Biscayers killed a whale which yielded 12 tons of oil, the first whale killed and the first train-oil ever made in Spitsbergen. In 1611, therefore, the whale-fishery of Spitsbergen was definitely founded by the enterprise of the Muscovy Company of London.

Far from being deterred by the misfortunes of this voyage the Muscovy Company fitted out two larger ships for the whale-fishery in 1612, namely the *Whale* (160 tons) and the *Sea-horse* (180 tons). Jonas Poole and Thomas Edge were again employed, also one John Russell. The harpooners were Basques as before. Edge says that "they discovered that yeere nothing worth writing of, by reason of some falling out betwixt Russell and Edge; yet they killed that yeere seventeen whales, and some sea-horses, of which they made 180 tunnes of oyle with much difficultie; as not being experimented in the businesse." The ships sailed from Blackwall on the 7th of April and anchored off Bear Island on the 3rd of May. Thence they sailed for Cross Road as before. Three of Poole's men died towards the end of May, of what disease is not stated. During the course of the voyage the English sailors began to acquire some knowledge of how to attack the whales.

A crew of five English and one Basque were very successful, for "there was not one whale killed with one boate alone, save ours, with all English save the Baske aforesaid, which slue three without the helpe of any other boate." This made the other Basques angry "because by their good wills they would not have us to have any insight into this businesse." The supply of whales appeared unlimited. One day, writes Poole, "the whales lay so thicke about the ship that some ran against our cables, some against the ship, and one against the rudder. One lay under our beake-head and slept there a long while. At which time our carpenter had hung a stage close by the water, whereon his tooles lay. And wee durst not molest the said whale for feare he should have overthrowne the stage and drowned all his tooles. In the end he went

away, and carried the ships head round, his taile being foule of the cable."

This year, notwithstanding their charter from the Privy Council, the Muscovy Company's ships did not have the fishery to themselves.

"The Hollanders (to keepe their wont in following of the English steps) came to Greenland (*i.e.* Spitsbergen) with one ship being brought thither by an English man, and not out of any knowledge of their own discoveries, but by the direction of one Allen Sallowes¹, a man imployed by the Muscovia Companie in the Northerne Seas for the space of twentie yeeres before; who leaving his country for debt, was entertayned by the Hollanders, and imployed by them to bring them to Greenland for their Pylot. At which time being met withall by the Companies Ships, they were commanded to depart, and forbidden to haunt, or frequent those parts any more by mee Thomas Edge. There was also a Spanish ship from San Sebastian, brought thither by one Nicholas Woodcocke this yeere, a man formerly imployed by the said Companie; which Spanish ship made a full voyage in Green-harbour. But Woodecocke at his returne into England, being complained of by the Companie, was imprisoned in the Gatehouse and Tower, sixteene moneths, for carrying the Spanish ship thither." The report of this successful voyage and the "full cargo" of the Biscay ship is stated to have been the cause of the great inroad of foreign interlopers on Spitsbergen waters in 1613.

The captain of the Dutch ship was Willem van Muijden or Muijen, after whom the little bay, just outside Axel Island, in the N. coast of Bell Sound takes its name. It is characteristic of the blundering in Spitsbergen nomenclature, that this name, misspelt Van Mijen, should have been removed from its proper place and transferred to the

¹ It may be regarded as certain that Sallows took with him the Muscovy Company's first Spitsbergen chart, which Gerrits states to have been drawn in London in 1612 (*i.e.* in the winter of 1611-12), and contains the information obtained by the expeditions of 1610 and 1611. It was published by Hessel Gerrits in his *Histoire du pays nommé Spitsberghe*. The draughtsman was John Daniel. It is recorded in *Roe's Journal* (Hakluyt Soc. edition, Vol. I. p. 3) that the East India Company's ships in 1613 used "a platte of John Danyells making being Mercator's projection" for the voyage to the Cape.

large northern branch of Bell Sound, whose proper name is Low Sound. The supercargo of the Dutchman was one Kijn. He tried to climb a high hill on Charles Foreland but missed his footing, fell, and broke his neck. The south cape of the Foreland was called Kijnnaes (Kyn Ness) after him by the Dutch, and the Foreland itself Kyn Island. It is possible that after the Dutch had been sent away by the English they did some exploration to the northward; a statement to that effect appears in the *Coorte Deductie* of the Dutch Noordsche Company of 1624. An earlier and obviously false account says that they sailed beyond 83° N. and found an open sea bordered by grassy lands¹.

Besides the foreigners there were two English interlopers, regarded by the Company's men with almost as much hostility. They were the *Diana* of London, "whereof one Thomas Bastion dwelling at Wapping Wall was Master," and the *Hopewell* of Hull, again commanded by Thomas Marmaduke.

Poole met both vessels in Foreland Sound. Early in June Marmaduke sailed away northward. He carried off the post and arms set up by Barents at Fairhaven, and he explored "as far as 82 degrees, two degress beyond Hakluyts Headland" according to Poole². Of this exploration we only know that Marmaduke visited Red Beach, and that one of his men, named Laurence Prestwood, landed at Grey Hook on August 17th and set up a cross with his name and the date, which cross Fotherby saw in 1614³. This was probably the limit of the voyage.

¹ Muller, *N. Co.* pp. 166, 167.

² Admiral Markham suggests that this statement is erroneous. Hudson in the *Hopewell* was believed, as we have seen, to have explored up to 82° in 1607. It is not improbable that a confusion arose between the doings of the *Hopewells*. The actual fact is that Marmaduke went further than Hudson.

³ *Vide* Hakluyt Society's *Baffin*, pp. 90, 93.

CHAPTER VI.

THE TROUBLES IN 1613.

DURING the winter of 1612-1613 great preparations were made, both in England and abroad, for the exploitation of the new whale-fishery. The Muscovy Company, determined if possible to secure a monopoly of it, obtained a charter from King James I, giving them all they desired, and excluding from the fisheries all other persons whatsoever whether English or aliens¹. Six different accounts of the fishery in the summer of 1613 have come down, enabling us to follow the doings of almost every day. Purchas prints a brief note by Thomas Edge and a longer journal by William Baffin. Immediately after the return of the fleet, Hessel Gerrits, the Amsterdam geographer, published an important and now very rare pamphlet in French, recounting its ill-treatment at the hands of the Company's servants². But the most picturesque account, from which I shall quote at some length, is one existing in MS. in the Library of the American Antiquarian Society, written (there seems little doubt) by Robert Fotherby³. There exists besides in the British Museum a MS. entitled "A briefe Narration of the Discoverie of the Northerne Seas and the Coasts and Countries of those parts as it was first begunn

¹ *Record Office Sign Man.* Vol. 13, No. 10; *Grant Book*, pp. 117, 128 (30th March, 1613).

² *Histoire du pays nommé Spitsberghe*, etc., Amsterdam, 1613, 4to. A translation of it is included in the present author's Spitsbergen volume, published by the Hakluyt Society in 1904.

³ Printed in the *Transactions and Collections of the American Archaeological Society*, Vol. IV. (1860), p. 285; and reprinted by the Hakluyt Society in a volume entitled *The Voyages of William Baffin*, edited by C. R. Markham, London, 1881, 8vo.

and continued by the singular Industrie and charge of the Company of Muscovie Merchants of London¹." This contains an account of the events of 1613 in Spitsbergen, whilst a similar relation from the Dutch point of view is in the *Coorte Deductie end Remonstrantie* of 1624 printed by Muller².

The English fleet consisted of seven vessels under the command of Benjamin Joseph, "a man very sufficient and worthy of his place." With him were associated Thomas Marmaduke (the Hull interloper of the previous year), William Baffin, Robert Fotherby, Thomas Edge, and other officers. The ships were the *Tiger* (250 tons), which was the Admiral and carried 21 guns³, the *Matthew* (250 tons) Vice-Admiral, the *Gamaliel* or *Sea-Horse* (200 tons) Rear-Admiral, the *Desire* (180 tons), the *Annula* (140 tons), the *Richard and Barnard* (60 tons), and the *John and Francis* (180 tons). Joseph and Baffin were on board the *Tiger*, Fotherby on the *Matthew*. The *Richard and Barnard* was intended for discovery, the *Tiger* for protection; all the others were for the whale-fishery. Four-and-twenty expert Basque whalers accompanied these vessels.

Fortified by the arguments of Grotius in his newly published work, *Mare Liberum*, and stimulated by the information acquired during the previous season by the skipper Willem Van Muyden, the Dutch adventurers were no whit behindhand with their preparations. The merchants of Amsterdam fitted out two ships for Van Muyden, and hired twelve Basques to serve under him, whereof three were harpooners, three whale-boat captains, the remainder experts at flensing whales and boiling down blubber⁴. Enkhuisen sent a ship with the Englishman Thomas Bonner⁵ for master and pilot, and 20 English seamen in the crew. Zaardam despatched two sloops for walrus hunting only;

¹ *Add.* 14027, f. 172, and a modern copy, *Add.* 33837, f. 70.

² *N. Co.* p. 394. See also the "Request" of the Amsterdam Adventurers to the States General printed in Wassenaer, VIII. f. 88.

³ The Spanish writer Madoz (IX. p. 163) says that two of the English ships were armed.

⁴ The master of the second Amsterdam ship was not Mossel, as stated in Gerrits' text, but corrected in an *erratum*. He was Jan Jacobsz. Vrijer.

⁵ Gerrits calls him Bonaert.

whilst Dunkerque hired two Dutch vessels, the larger commanded by one Fopp, the smaller a "pincke" or pinnace¹ of Hoorn, with Claas Martin for master. Van Muyden was provided with "a Commission granted by the Grave Maurice for to fish in" Spitsbergen, an offset against the Muscovy Company's charter from King James. Nor were these all the interlopers of the year. According to Edge there were four English vessels; perhaps he counted in those piloted by Sallows and Bonner. But only one interloper is recorded as actually sailing from an English port, the *Desire* of Aldborough, whose master was named Fletcher and her supercargo Cudner of London.

Fired by accounts of the successful voyage made in 1612 by the ship of San Sebastian, the ports of the Bay of Biscay, old centres of the whale-fishery, likewise prepared to claim a share in the new trade. From San Sebastian itself went forth eight vessels, one of them the ship that Woodcock had piloted up the previous year; St Jean de Luz fitted out a great ship of from 700 to 800 tons, a smaller ship, and a pinnace. Bordeaux sent the *Jacques* (200 tons) with the absconding bankrupt Allen Sallows² for pilot. La Rochelle was represented by a ship belonging to Hoorn, hired on behalf of the merchant Jean Macqui, and by "another small shippe." One of the St Jean de Luz ships had permission from the Muscovy Company to fish under a royalty agreement. All the others went up to try and break down the Company's monopoly.

The English fleet sailed from Queenborough on the 13th of May and came in sight of the southern parts of Spitsbergen on the 30th of the same month³. Proceeding northward they spoke next day the authorized ship of St Jean de Luz as well as Sallows' ship, but we shall come later to the adventures of the foreigners. "Then," says Fotherby, "we plied nearer to the shoare, and discerned the mountains to be covered with snowe, notwithstanding, wee

¹ A pinnace was a long, light, narrow vessel, with a crew of about 25 men. Père Fourmier believes this type of vessel to have been of Biscay origin.

² Gerrits writes the name Silly and Selly, Baffin writes it Sallas.

³ So say both Baffin and Fotherby. Edge (as printed by Purchas III. 466) makes them sail from Gravesend on April 26th, and reach Spitsbergen on May 14th.

had no trouble with ice all this while, as wee expected ; for it was almost all avoided er wee came ther. Nowe wee coasted along towards Sr Thomas Smyth's Baye, passing on the west side of Prince Charles his Iland....The 1st of June wee were becalmed on the south-west side of the iland, about five leagues from the shoare.....The 2nd of June, haveing gotten a little more northward, and beeing on the west side of the iland, againe becalm'd, about three leagues distant from the shoare, I and Joh. Wilmote, one of the master's mates, with 6 more of our sailors, went ashore in a Biska shallop (whale-boat), purposeing to kill some deare and some wild fowle ; and to that end wee took with us such dogs as wee had in our ship, viz. a grewhound, a mastiffe, and a water spaniell, and two fowleing-pieces, with shott and powder. We landed upon a hard shingle, comeing close to the shoare with our boat, there being no ice to keep us off ; notwithstanding upon five or six rocks, near the shore side, there laie a great quantitie of ice, which covered them in such sorte, that the hollowness or distances betwixt one rock and another, appeared under the ice like vaulted caves. After that wee were landed upon the shingle, the ice or congealed snowe was so high upon the shoare, that it withstood us like a strong wall, to pass anie further ; wherefore wee wer faine one to help up another, it beeing more than a man's height in thickness, and haveing manie long isicles hanging in divers places. When wee were up, and had gone about two roods, wee might perceave that wee were upon the ground or sand ; yett could not see it by reason of the snowe. Then wee did look about if we could see any deere ; and presentlie espied one buck, whereupon we dispersed ourselves severall waies, to gett betwixt him and the mountaines, slipping sometimes to the mid leg into the snowe, which, for the most part, did beare us above. In our waie wee went over two or three bare spots that were full of flatt stones, whereon ther grew a certaine white mosse, which, it seems, the deare doe feed upon at the first beginning of their somer ; for these spotts were full of their ordure ; and beside, wee then sawe not any other thing for them to live on. Before that wee came near the buck which wee first espied, wee sawe, four more not farre from him, and two in another place, and therefore

we hounded at the fairest heard ; but then they came all one waie together, and (avoiding all circumstances) we kill'd three of them, being all bucks, which wee found then to be but pore rascles, yet verie good meat, as we presentlie made tryall and tasted. For, finding ther (as ther is in all places of the countreye) great store of driftwood, which the sea bestowes on the barren land, and being also well provided of hunter's sauce, wee made a fier and broiled some of our venison, and did eat thereof with very good appetites."

Next day they sailed round the Fair Foreland and anchored in Sir Thomas Smith's Bay, that is to say in the north end of Foreland Sound. The position of the anchorage is not recorded. Gerrits says it was where the ship sank in 1612. Fotherby's account of the gale that blew on the 19th of June proves that it was near the east shore, for that gale was from S.S.W. He says it "was like to have driven our ships upon the shoare ; and haveing three dead whales floating at the sternes of our ships, wee were glad to cut the hawsers that they were tyed in, and to lett them drive a shoare ; because we feared that otherwise they would have caused our ships either to break their cables, or to haile home their anchors, and to be driven upon the shoare." If we look for the most likely anchorage in the direction thus indicated, we can scarcely fail to choose the cove now known as English Bay, but whose true and original name was "Cove Comfortlesse."

From Gerrits we learn that the English set up their tents and coppers on both sides of the strait where they *avoient encore leurs loges de l'année passée*. The Basques were at once sent off in the whale-boats to Fair Foreland and immediately killed a whale, though, according to Gerrits, they merely stole one previously killed by an interloper. "We presentlie began work," says Fotherby, "which we continued (God be thanked) without any want of whales, till our voyage was made ; not receaveing anie intermission of rest, but onlie on the Saboth daie. For when some slept, others wrought ; and haveing a continual daie, wee alowed no time of night for all men to sleepe at once, but.....our men receaved no other recreation from work and sleep, but onlie the time of eateing their meat, whereof they had

sufficient, thrice in every 24 howers." While the crews were thus employed Fotherby made one or two expeditions to fetch wood and to prospect for walrus. Once when they were towing a big piece of timber behind their boat "there came five or six morses swimming hard by us and about us; some of them coming so near the sterne of the bote that we called for our launces, purposing to strike them. They would, divers times, laie their teeth upon the tree which we towed (as it were scratching the wood with their teeth), but wee still rowed awaie and at length they left us." During the season they killed at this place "verie fewe deare, notwithstanding ther have been slaine in this country, this voyage, about 400 deare. Wee kil'd very few morses, by reason the whales came so fast, that wee could not have a fitt opportunity to goe about that buisinesWe killed also good store of wild fowle.....Wee caught manie young foxes, which wee made as tame and familiar as spaniell-whelpes....On the 24th of June the *Matthew* began to take in hir ladeing, and was fully freighted the 6th of July with 184 tonnes of oyle, and 5000 finnes." On the 8th of July she and the *Richard and Barnard* (likewise laden) sailed with the *Tiger* for Bell Sound on their way home. The *Desire* joined them there and sailed with them on the 31st, leaving the other four vessels to follow.

Whilst the *Matthew* was at anchor in Joseph (Recherche) Bay Fotherby made the first recorded glacier expedition in Spitsbergen. "Purposing," he writes, "to walk towards the mountaines, I, and two more of my companie, ascended up a long plaine hill, as wee supposed it to be"—it was probably the Fox glacier—"but having gon a while upon it, wee perceived higher up, about the length of half a mile, and as we went, manie deepe rifts or gutters (*i.e.* crevasses) on the land of ice, which were crackt downe thorowe to the ground, or, at the least, an exceeding great depth; as we might well perceive by heareing the snowe water run belowe, as it does oftentimes, in a brook whose current is somewhat opposed with little stones. But for better satisfaction, I brake down some peeces of ice with a staffe I had in my hand, which, in their falling made a noise on each side, much like to a peice of glasse thrown

downe the well within Dover Castle, wherby wee did estimate the thicknes or height of this ice to be thirty fathomes. This huge ice, in my opinion, is nothing but snowe, which from time to time has, for the most part bene driven off the mountaines; and so continueing and increasing all the time of winter (which may be counted three quarters of the yeare), cannot possiblief be consumed with the thawe of so short a sommer, but is onelief a little dissolved to moisture, whereby it becomes more compact, and with the quick succeeding frost is congealed to a firme ice. And thus it is like still to encrease, as (I think) it hath done since the world's creation."

The English ships that at their first arrival had anchored in Sir Thomas Smith's Bay were the *Tiger*, the *Matthew*, the *Annula*, and the *John and Francis*. The *Gamaliel*, the *Desire*, and the *Richard and Barnard* made their rendezvous at Ice Sound, where they first put into the bay which in that or the previous year was named by the Dutch Behouden (safe) Haven¹, whilst the English called it Niches Cove, Port Nick, and Poopy Bay indifferently. On the 9th of June these ships crossed to Green Harbour, where most of them "made their voyage." The *Tiger* at once set to work on her business as police ship. At Fair Foreland she captured a Dunkerque whale-boat with two Englishmen and one Scot on board, who were promptly impressed into the Company's service. Then (June 5th) she sailed away and "did continue as a wafter alongst the coast till the 27th of June," says Fotherby, "and then he came to us againe into Sir Thomas Smyth's Baye. In which time of his absence he had mett with 17 ships, viz., 4 of Holland, 2 of Dunkerk, 4 of St John de Luz, and 7 of San Sebastian. The commanders of all those ships had submitted to our general; and were content either to departe out of the country, or els to staie upon such condicions as he propounded unto them."

We now proceed to disentangle from the four narratives the adventures and troubles of these foreign ships. Gerrits says that the two Amsterdam ships, piloted by Willem Van Muyden, were the first to arrive and that they

¹ Possibly with reference to the fact that the Biscay ship made a full cargo there in 1611 notwithstanding the English.

were found by the English in Sir Thomas Smith's Bay¹. The English narratives however precisely state that it was in Niches Cove on the 6th of June that the *Tiger* found them and two other ships. Notwithstanding "Grave Maurice's Commission" Joseph ordered them away and they promised "that they would depart this coast, having our general's ticket to show to their adventurers that they were there, and had made their port, and how he would not suffer them to fish." On the 9th of June they were in Green Harbour, on the 10th the *Tiger* saw them again riding at anchor in the entrance of Low Sound, that is to say at the anchorage outside Axel Island in the north coast of Bell Sound, which for 200 years afterwards was known, and ought still to be known, as Willem Van Muyden Haven. The *Tiger*, being then alone, appears to have felt unequal to tackling the two ships, so left them for the time. The Dutch presently crossed to the fine bay opposite, to which they gave the name Schoonhoven, while the English called it Joseph Bay after their admiral². Van Muyden determined to hold this bay against all comers, but the 800 ton ship of St Jean de Luz, presently coming in he thought better of it, and, as the Spanish captain afterwards related, "insulted over him, and would not suffer him to fish for the whale but upon such condicions as they propounded unto him, namely, that the Hollanders having but 3 shallops, and he 7 furnished with whale strikers, they should all joine together; and the Hollanders not onlie to have the one-half of all the whales that should be kil'd, but also to have the first whale that was stricken wholie to themselves, over and besides the half of the rest. And he further tould the general (Joseph) that the Hollanders would have persuaded him to combine with them against us, and to beate us out of the countrey." Here accordingly, in Joseph Bay, the Dutch and Biscay ships³

¹ According to the *Coorte Deductie* one went to Bell Sound, the other to Horn Sound; this was not strictly true.

² It is now commonly called Recherche Bay.

³ There was a little Biscayer as well as the big one, and "a Flemish flie boat" (one of the Zaardam boats, perhaps), "besides another little pinace of St John de Luz which was on the east side of the iland (now Eders I.) within Lord Elesmere Baye." Lord Elesmere Bay is therefore the original name of the south-east branch of Bell Sound. At that time, according to Gerrits, it was

were found on the 11th of July by the *Tiger*, the *Matthew* and the *Richard and Barnard*, the last two being on their way home. The *Michael de Aristega*, says Fotherby, "seemed unto us to be a verie great ship, as indeed she was"; the two Dutchmen "seemed also to be good stowt ships. And therefore wee, supposing them to be such as would withstand us, resolved to feight with them, and made spedie preparation accordinglie hanging our waist-cloths and clearing our decks, that the ordnance might have room to plaie; and made readie all our munition, ech one addressing himself with a forward resolucion to perform a man's parte so well as he could. This was about 9 o'clock, before the time of midnight, the sunne shining very bright, and the aire being very cleare, and so calme that wee caused ye saylers with boats and shallops to rowe ahead of our ships, and towe them into the harbour. When wee came neare them, the captain of the great ship whose name was Michael de Aristega (his ship being of St John de Luz, of burthen 800 tonnes), came in a shallop aboard our admirall, submitting himself and his goods unto our generall, and tould him" the above story as to how he had been handled by Van Muyden. "Then the generall willed him to goe aboard againe of his own ship, and keepe his men in quietness and he would deale well enough with the Hollanders. So, passing further on, they were knowen to be 2 ships of Amsterdam, which our admirall had formerlie met withall, and dischargd to staie in ye country. Then, comeing by close to them, our admirall anchored on one side of them and our vice-admirall on the other; but they, as men unwilling to be deprived of the ritches they had gotten, although unable by force to hold them, kept out their flags—the one in the maine-top, and the other in the fore-top, as admirall and vice-admirall. Then our generall commanded the maisters to come aboard his ship, which they doeing, he chardged them with the breach of their promise formerlie made unto him—viz., that they would

known to the Basques as "*la baye des Franchoyz a cause qui celle nation y estoit la plus part.*" The Dutch whalers called it Zaardam Bay. The modern chart-name Van Keulen Bay is wrong. It first appears on Giles and Rep's big chart (of after 1707), where, as Van Keulen's Baaytje, it is applied to a minor bay in the N. coast of Zaardam Bay (which is there wrongly named Michiel Ryners Rivier).

departe out of the country. Then, after some other speeches, he, not finding them willing to resigne the goods they had gotten—as whale oil and finnes—tould them that they must not think to carrie anie of it awaie, seeing that they did so sleightlie esteeme the King's ma'ties grant formerlie shewed them; therefore, he bad them go againe to their own ships, and they should have half an hower's space to consider and advise with themselves what to doe; and if they thought fitt to give him further answer before the glasse were runne out, then good it were; otherwise, if they would not then yield their goods, he would feight with them for them. So ech of them went aboard his own ship, and, without anie long deliberation caused their flags to be taken in; and retourning to our generall, yielded their goods to our disposing. Nowe, although it was intended that our two laded ships should go presentlie for England, notwithstanding it was thought fitting not to leave our admirall alone amongst his offended neighbours; and therefore, wee staid till the two Hollanders were gon, who (being dispossessed of some oile and finnes they had alreadie stowed in their ships, and also of some dead whales that were floateing at their ship's side)¹ went forth of harbour one of them the 15th and the other the 18th of July."

Van Muyden still hung about the coast of Spitsbergen, and sent his shallops ashore to pick up what they could. In all they had the good luck to acquire 400 "beards" of whalebone drifted up on the beach. But bad luck pursued him, for one day six of his men thus landing at high water, "made fast their shallop, and so left her, safe enough, as they supposed, and went up into the land; but when the water fell againe, the shallop was splitt upon a rock." A second crew sent to seek the first found them, but in the thick and stormy weather that followed could not again find the ship, so that Van Muyden sailed home without them. The abandoned crew of eleven men lived for eight days on two bucks and a bear which they killed with their last ammunition. They then fortunately found the *Desire* sailing homeward.

¹ Gerrits says that Joseph took 18½ whales from Van Muyden, and gave him as a present 20 pipes of oil and 21 "beards" of whalebone.

The story is thus related¹ in a contemporary letter, from Sir Thomas Smith to Lord Rochester. "Our shippes in their retourne found a Shallop with eleven men in her which did belong to the Admiral of the Dutch fleet, which lost their shipp in a fogg and were wandering up and downe eleven dayes haveing only two days victuall when they departed from their shipp, and being at the pointe of death by famishing, our men tooke them in and saved their lives, and brought hither to London and have given them mony to transport them in to their owne Countrie."

Thomas Bonner, the English pilot of the Enkhuizen ship, was no more fortunate than Van Muyden. To begin with he left six men to kill walruses on Bear Island, but during the whole season they only killed one. Then the *Tiger* found him on June 13th along with three or four other ships at anchor in Boules Bay² of Horn Sound. Joseph sent for Bonner to come aboard, but he refused to do so. "Our generall," says Baffin, "commanded our gunner to shoot at him, he himself discharging the second ordnance. Then presently he began to set saile, and cut his cable thinking to get from us; but wee having shot him through three or foure times, they began to weare us, so we sent our shallop and he came aboard. There were five or sixe more of the English men fetched aboard, and some of our men sent to bring her to an anchor, where she might ride safe, for shee was almost run ashoare. Next day the ship was taken over and kept for the use of the Companie³."

The Dutch account states that the English used the tent and equipment of the Dutch ship, and lading the ship, took her to England with them and only there set her free. It seems that Marmaduke was put in command of her and

¹ *State Papers, Domestic*, James I, Vol. XL. No. 38, p. 534.

² Later called Goose Haven.

³ Quite naturally Bonner did not go home with any very favourable reminiscences of Spitsbergen. Chance has preserved a fragment of a letter written by him to his father, in which he says, "This is the worst and coldest region of the world, everywhere cliffs, mountains and rocks. The quantity of water pouring over the land is such that the footprints of man are obliterated. The amount of ice is enormous and the ice-mountains so many that they seem to have been accumulating even ever since the birth of Christ. The abundance of snow surpasses belief," etc. This passage, translated into Latin, is printed by Hessel Gerrits in his *Detectio Freti*. Amsterdam, 1613, 4to.

sent northward to explore, but on the 9th of August he came into Bell Sound not having been beyond Fairhaven. He was then intending to go round the South Cape and explore eastward. Joseph "told him that he had hindered the voyage more by his absence than his discoverie would profit; and that it were best that he went back with him to the Foreland, and that he would give no licence to go now for discoverie, because the yeare was far spent; but bad him, according to his commission, so to proceede." The statement by Edge that "this yeare was Hope Iland and other Ilands discovered to the eastward by the Companie," seems to prove that Marmaduke went his way in spite of Joseph; at all events his own ship did not remain or sail home with the others, though the captured Dutch ship did.

The rest of the foreign ships may be dealt with more briefly. One of the Zaardam sloops was compelled to serve as tender to the English ships in Sir Thomas Smith's Bay. She was sent about to fetch drift-wood and to carry oil from the shore to the ships. For this service she received some barrels of oil and "beards" of whalebone as pay. The second Zaardam ship was the only Dutch vessel that made a voyage, and returned to Holland with her cargo¹. From the two Dunkerque ships the Englishmen in the crew were pressed, the larger ship was sent straight home, while the smaller was given a job in Horn Sound. Here her crew mutinied and sailed for Norway, but ultimately they were overpowered by their officers, and on arrival at Dunkerque were given into the hands of justice.

The fortune of the Biscay ships was less uniformly bad. All the San Sebastian vessels, variously estimated at 5, 7, and 8 in number, were sent straight home. Among them was the ship that Woodcock had piloted up the previous year; she arrived at Spitsbergen from Greenland, where she had lost six men and a boat on an island in latitude 72°. Two of the four St Jean de Luz ships were allowed to fish on condition that they only kept half the oil they made. In the case of the big ship commanded by Michael de Aristega, Gerrits says that this arrangement was revoked,

¹ Wassenauer, *Hist. Verh.* VIII. 88.

but the English accounts are silent on the matter. The Rochelle ships seem to have been sent home empty but some men remained in Green Harbour; for it is recorded that, on July 25th, two Rochellers, "for pilfering and for some peremptorie speeches, were ducked at our yard arme, the one on the one side, and the other on the other." The *Jacques* of Bordeaux, with Allen Sallows for pilot, was permitted to fish in Green Harbour on these terms, that he might keep any whales he killed after the first eight. In the result he killed twelve. Gerrits says that all of them were confiscated, and that even the sailors' clothes were taken from them and they beaten into the bargain, but Baffin says the arrangement was faithfully carried out. At all events this ship sailed home in company with the *Tiger*.

Of the English interloper, the *Desire* of Aldborough, there is little to say. She visited Bear Island and took off the six men left there by Bonner, and she was afterwards spoken off Cape Cold by the home-going fleet of the Company. Fletcher, her master, then stated that "they had made but a bad voyage of fish," and that they were in fact on their way to Sir Thomas Smith's Bay to see whether the Company could freight them home.

There must also have been a Hull interloper in Spitsbergen waters this year, for in the Trinity House at Hull a shallop, called the *Bonny Boat*, is still carefully preserved, which is said to have been found and brought home from the Arctic regions this year, 1613, by Captain Andrew Barker. Can it be that after the other whalers had gone home, leaving their stuff behind on the shore for next season, Captain Barker appropriated this boat and carried it home as a trophy?

All the ships seem ultimately to have reached their respective ports in safety. The English brought home a live reindeer to present to the King. Edge says that the Company would have made three or four thousand pounds more profit if their ships had not wasted their time chasing the foreigners. Gerrits, on the contrary, states that the Company's profits amounted to "une richesse incroyable." Naturally the foreign adventurers were much disgusted with the treatment their ships had received. They

complained, says the *Mercure françois*¹, "au Senat qui leur donna des lettres de recommandation au roy de la Grand'Bretaigne, ou ils envoyèrent pour tascher de r'avoir ce qui leur avoit este oste. Mais ils trouverent ce vieux Proverbe véritable que qui est le plus fort est le maistre de la mer; que telles gens ne prennent jamais pour rendre. Tellement qu'ils n'en eurent d'autres raisons; ce qui les fit résoudre qu'aux voyages qu'ils feroient au Groenland², d'y aller forts affin de se defendre des Anglois qui les attaqueroient et se venger de l'injure recue."

The news of the events of the season created some stir in Europe. The Dutch sent envoys to England to make protests and reclamations. The famous Hugo Grotius was one of them. The Muscovy Company refused satisfaction and resolved to defend their monopoly by force³. It was at this time that Hessel Gerrits, the active promoter of nautical enterprise at Amsterdam, published the controversial pamphlet already alluded to. The controversy was thus formally begun which was destined to drag itself on for more than half a century and to obtain solution, not at the hands of diplomatists, but by process of events.

¹ *Mercure françois*, 1613, deuxième continuation, pp. 180, 181, quoted by E. T. Hamy, *Les François au Spitsberg* (*Bull. de géogr. hist. et descr.*), Paris, 1895, 8vo. p. 14.

² Spitsbergen.

³ Letter of Chamberlain to Carlton (27th Oct. 1613), *Calendar of State Papers, Domestic*, 1611-18, p. 203. P. Jz. Twisck's *Chronijck* (Hoorn, 1620), 4to. Vol. II. p. 1675.

CHAPTER VII.

THE EVENTS OF 1614.

IMPELLED by the necessity for mutual cooperation and support, the various Dutch adventurers of Amsterdam, Zaardam, Enkhuizen, and Hoorn laid aside their mutual jealousies and agreed that, in order to make head against the English and establish their right to whale in the Spitsbergen bays and waters, they must unite into a single powerful company and obtain the help of the States Government. To begin with, the two separate Amsterdam partnerships united into one company on January 27th, 1614, and applied to the States General for a monopoly, which was straightway granted to them for the three following summer seasons¹. Thereby the Noordsche Compagnie was founded. It was formed by the union of Chambers representing Amsterdam, Delft, Rotterdam, Hoorn, Enkhuizen, and Zaardam. Later on other Chambers were added. The object of the monopoly was to force all the Dutch whalers into one company, for any that remained outside would be forbidden to fish. The English endeavoured to checkmate this opposition by formally annexing Spitsbergen, which they wrongly though perhaps ignorantly claimed by right of first discovery.

On April 12th the Muscovy Company obtained an Order in Council², again approving their enterprise and granting them permission to defend themselves if attacked and to uphold the King's right to Spitsbergen. We shall consequently find the Company's servants busy in the following season setting up the King's arms and going through elaborate ceremonies of taking possession. There

¹ See the charter in *Zorgdrager* (German edition), p. 205.

² *Calendar of State Papers, Domestic*, Add. 1580-1625, p. 539.

was activity of preparation everywhere, for on the events of the following season the future of the fishery was likely to depend.

As the season of 1614 approached both English and Dutch made great preparations for the fishery. The Dutch whaling fleet of fourteen ships was protected by a convoy of three or four States men-of-war, "Ships with thirtie pieces of Ordanance a piece." Two of these ships were sent for discovery, and came home with fine tales of their doings, as we shall see presently. The Admiral of the Dutch fleet was Hillebrant Gerbrantsz. Quast; the Commissary General was Anthoni Monier¹.

From the instructions given to the admiral by the States General² we learn that the Dutch fleet was to rendezvous at the Shetlands on May 12th, and sail thence in company to the fishery. They were ordered not to attack any foreign whalers, but if attempts were made by any to hinder them in their own fishing they were empowered to resist by force.

The English fleet this year numbered only "eleven ships of good burthen and two pinnasses," under the command of Benjamin Joseph and Thomas Edge³. Two of the English ships were intended for discovery and to take possession of lands and harbours. One of these was the *Thomasine*, whereof T. Sherwin was master, W. Baffin pilot, and R. Fotherby master's mate; the other was the *Heartsease* of Hull, under the command of the famous Thomas Marmaduke. The only accounts of the voyage we possess refer to the doings of the *Thomasine*⁴. We hear little of the other ships. One went to Bell Sound, four to the bays near the Foreland, in that year no longer collectively called Whales Bay, but each separately designated. Two settled in the south harbour of Fairhaven, and set up their coppers on the shore. Later on four of the English ships were sent to the eastward of the South Cape, where

¹ After whom Monier's Bay was named; Fotherby this year named it Red-cliff Sound. It is now commonly called Red Bay.

² Printed in Muller's *N. Co.*, p. 370.

³ Thus Fotherby states in his log. Edge says "13 great ships and 2 pinnasses," but he is clearly wrong.

⁴ See Purchas III. p. 720, and the Hakluyt Society's *Baffin*, pp. 80-102, for Fotherby's log. Edge's abstract is in Purchas III. p. 466.

they discovered some islands, but nothing else is known about their doings. Purchas possessed their journal and intended to print it, but unfortunately failed to do so. The fact was that the year was very unfavourable. The northern harbours were blocked with ice all the season, and many whales were lost under it. The whales were late in arriving at the Foreland. This, rather than the presence of the Dutch, diminished the success of the voyage. The icy Arctic summer of 1614 succeeded a winter that, in England at any rate, was unusually cold and snowy. It was the coldest there had been for some 34 years¹.

On June 23rd Joseph and Monier signed an agreement² in Bell Sound, which was the station of the English commander, whereby English and Dutch agreed to a *modus vivendi* for that season. By this agreement the Dutch engaged to clear out of Bell Sound, Ice Sound, Fair Foreland (*i.e.* Sir T. Smith's Bay, and Cross Road), and Fairhaven. These four harbours were recognised as English stations. The Dutch were to be allowed to settle in any other harbour to the south or north, provided they did not find it to be already occupied by English ships. Both captains agreed to assist one another in driving away interlopers of other nations. It is stated twice over that the arrangement was made for this year 1614. We shall hereafter find the Dutch claiming that the arrangement was intended to be permanent. On it they based their claim to settle in Horn Sound in 1617, and both in Bell and Horn Sounds in 1618.

In consequence of this bargain the Dutch went to Horn Sound and to the north, where they anchored off Amsterdam Island in what was then called "the north harbour," to distinguish it from Fairhaven, or "south harbour," which the English occupied. In modern times the name Fairhaven has generally been used for the anchorages near Vogelsang and the Norways. The early

¹ See a pamphlet entitled "The Cold Yeare 1614. A Deepe Snow in which men and cattell have perished," etc. London, 1615; reprinted in R. Triphook's *Miscellanea Antiqua Anglicana*. London, 1816, 4to.

² The terms of the agreement are printed in Wassenauer, *Historisch Verhael*. VIII. ff. 94, 95.

English use of it was for Mauritius or Dutch Bay in general, but especially for the South Gat or English Bay.

When, in 1614, Dutch and English began whaling in the north and south parts of Fairhaven respectively, the shores were as yet unencumbered by any of the works of man. Each set of whalers anchored in some convenient place, as near a level beach as possible, and "set up their shallops," or, as we should say, launched their whale-boats. When the whales came in, the bay was full of them. As soon as a whale was killed, it was towed ashore and flensed, and the blubber was there and then boiled down into train-oil in a copper on shore. All that was needed was a big copper caldron, some wooden vats or coolers, and the necessary barrels for holding the finished product. The English caldron was set up probably near the south-east point of Danes Island, the Dutch caldron on the south-east point of Amsterdam Island. The work completed, the coppers were taken on board again and carried home. It soon became apparent that to carry out and home all the equipment for whaling and blubber-boiling every year was a labour that might be avoided if a safe place could be found for leaving it. Hence the need for some fixed establishment on shore which should be recognised as private property. The English appear to have had some such place in Cove Comfortless, or near Fair Foreland. The Dutch tried to build a hut themselves in Bell Sound, but the English pulled it down. Ultimately the Dutch decided upon the flat at Amsterdam Island for their base, and about 1617 they built one or two huts there. In these they left their whaling tackle. They set up their coppers in a permanent fashion on a brick foundation, with a brick fireplace beneath and a chimney for the smoke. A large warehouse was soon found necessary, not merely for storing the surplus of train-oil which they were unable to carry away in their full-laden ships, but to be a working-place for the coopers, whose work could not be well done in the open air in rainy weather. The men working on shore also needed sleeping and feeding rooms, and a cooking-place. These buildings were always called "tents," a proof that in the earliest years of the fishery actual canvas tents were all that were employed, as in fact we see in the

rough drawings illustrating Fotherby's MS. account of his voyage to Spitsbergen in 1613.

Thus in 1614 the Dutch for the first time appropriated the site afterwards occupied by their great whaling station, Smeerenburg; for the shore in the north harbour most suitable for the operations of flensing and boiling down blubber was the flat spit that runs south-eastward from the hilly centre of Amsterdam Island. The name, Amsterdam Island, was probably given this year, and the ships that anchored there were doubtless those of the Dutch fleet, sent out by the Amsterdam Chamber of the Noordsche Company; for afterwards an unsuccessful attempt was made to restrict the use of this harbour to Amsterdam ships only, on the ground of prior occupation.

Dunkerque sent out several ships in 1614, but where they went or what they did we know not¹. Biscay ships also came up, but Fotherby only mentions one as sighted off Magdalena Bay. Both English and Dutch chased other nations' interlopers away when they could. It is not improbable that the Biscay whalers, being much more expert than Dutch or English, and accustomed to taking whales far from the shore, were not so tied to the coast as their opponents. If they took whales in the open sea, as the Dutch learned to do a few years later, it is natural that little should be heard about them in Dutch and English logs. It was a sailor of Cibourre who invented the dangerous method of boiling down blubber on board ship by building a furnace on deck (*le second pont*), and using the "fritters" or residuum of the first boiling as fuel for the second².

Baffin and Fotherby, in accordance with their instructions, set up the King's arms at Magdalena Bay, Hakluyt's Headland, Red-cliff Sound, Point Welcome, and the E. point of Red Beach. They appear to have proceeded with much ceremony. Thus in the little cove behind the island in the south side of Magdalena Bay, Fotherby "caused a crosse to be set up, and the kings armes to be nayled thereon, under which also I nayled a piece of sheet lead,

¹ P. Fauconnier, *Description historique de Dunkerque*. Bruges, 1760, fol. Vol. I. pp. 121, 122.

² Hamy, p. 16; Hakluyt Society, *Martens*, p. 130.

whereon I set the Moscovie Companies marke, with the day of the moneth and yeare of our Lord. Then, cutting up a piece of earth, which afterward I carried aboard our ship, I took it into my hand and said, in the hearing of the men there present, to this effect: 'I take this piece of earth, as a signe of lawfull possession of this countrey of King James his New-land, and of this particular place, which I name Trinitie Harbour, taken on the behalfe of the company of merchants called the merchants of New Trades and Discoveries¹, for the use of our Sovereigne Lord James, by the Grace of God King of Great Brittain, France, and Ireland, whose royall armes are here set up, to the end that all people who shall here arrive may take notice of his maiesties right and title to this countrey, and to every part thereof. God save King James².'" Needless to say, the name thus formally given has disappeared from the maps. The latest Admiralty chart names this harbour English Cove. A similar ceremonial was performed on Hakluyt's Headland.

The Spaniards performed this kind of function in more elaborate fashion. Thus on November 22nd, 1597, Pedro Sarmiento went on shore at Port Rosario, in Magellan Straits, and hoisted a great cross, when "all worshipped it with much devotion, and sang *Te Deum Laudamus* in loud voices, on their knees. With great joy they gave thanks to God, knowing the mercies we had received at His divine hands. This done, the Captain Superior, Pedro Sarmiento, rose to his feet, and drawing a sword which hung to his belt, he exclaimed in a loud voice, in the presence of all, that they were all witnesses how, in the name of the sacred Catholic and royal Majesty of the King, Don Philip our Lord, King of Castille and its dependencies and in the name of his heirs and successors, he took possession of that land for ever. In testimony of this, and that those present might keep it in memory, he cut trees, branches, and herbs with the sword he held in his hand, and moved stones, with which he made a heap in token of possession." A procession was then formed,

¹ The formal name of what was popularly known as the Muscovy Company.

² C. R. Markham, *Pedro Sarmiento*. London (Hakluyt Society), 1895, 8vo. p. 41.

Sarmiento carrying the cross, troops following in battle array, monks singing a litany. The cross was planted on a high rock, prayers offered, *Vexilla Regis* sung, mass said, and a sermon preached. Finally, a great tree was felled and a big cross made and set up as a memorial.

The explorers made several attempts to push round the north-west corner of Spitsbergen, but were foiled by the ice which was packed down upon the north coast. More than once they visited the islands Vogelsang and Cloven Cliff, called by them Cape Barren and the Saddle. Baffin, indeed, reached the entrance of Red-cliff Bay and set up the King's arms, but could get no further. A few days later he returned there with Fotherby "purposing (because the ayre was very cleere) to goe upon some high mountaine, from whence we might see how the sea was pestered with ice, and what likelihood there was of further proceeding. According to this our intent, we ascended a very high hill, and from thence we saw the ice lye upon the sea so farre as we could discerne, so that the sea seemed to be wholly toured with ice, save onely to the eastwards; we thought that we saw the water beyond the ice, which put us in some hope that we should ere long get passage with our shallops along the shore, if we could not passe with our shippe." On the 14th of July they returned again, and this time, by crossing the ice, succeeded in landing on Red Beach, where they hoped to find stranded whalebone, but did not, for Marmaduke had been there, in 1612, and gathered it all up. Not being able to proceed further they returned to their ship in Fairhaven, a plan of which Fotherby drew, but Purchas unfortunately omitted it.

At length, on the 1st of August, the ice opened a little, so Baffin and Fotherby again started off with two boats and came to Red Beach. "We resolved," says Fotherby, "to walke over land to the other side of the beach, where we saw a hill about foure miles distant, from which we thought we should be satisfied how much further it was possible for us to proceede; so thither we travailed, where, when we came, we saw a very faire sound (Wiches Sound, now Liefde Bay) on the east side of the beach which was open within; but there lay very much ice at the entrance of it, which, although it was extended more than halfe over the

sound, yet we doubted not but if we could get our shallops about the beach, we should finde either one way or other to passe over the said sound, and from the high land on the other side (*i.e.* the hills S. of Grey Hook) we should receive very good satisfaction, if the weather continued faire and cleare as now it was, therefore we intended to make triall what we might do; but before we returned we went down to the point of the beach (*i.e.* to the point now wrongly called Welcome Point) at the entrance of the Sound, and there set up a cross, and nailed a sixpence thereon with the Kings armes."

Returning to their boats they presently brought them through the ice and across Liefde Bay. Landing on its east shore "Master Baffin and I clambered up a very high hill, from whence we saw a point of land (Castlins Point, now Verlegen Hook) bearing E.N.-E. by the ordinary compasse, eightene or twenty (really nine) leagues distant, as I supposed. We likewise saw another faire sound (Sir Thomas Smith's Inlet, now Wijde Bay) to the southwards of us, which was much pestered with ice, but we could not see the end of it. Here, upon the mountaine, we set up a warelocke¹, and then came down againe with lesse labour but more danger then we had in getting up, by reason of the steepnesse thereof."

At Grey Hook they met a boat of Marmaduke's, whose crew "were setting up a crosse, which they said that they found there fallen downe, and had been formerly set up, in the time of Master Marmaduke's first discovery by one Laurence Prestwood, whose name I saw thereon engraven, with two or three names more, and it had the date of the 17th of August 1612². Upon this crosse they nailed the Kings armes." The explorers pushed on in their boats round Grey Hook till the ice stopped them. They landed on the west shore of Wijde Bay and walked a league along it to "the point of a sandie beach that shot into the sound, which was wonderfully stored with driftwood in great abundance." Hence they saw to the head of the sound about ten leagues away. Unable to proceed further eastward they returned, not without some danger,

¹ Doubtless a stone-man or cairn.

² See above, p. 50.

to the *Thomasine* in Fairhaven. A few days later another expedition was made, but bad weather frustrated it.

"On August 14th," says Fotherby, "was the land, both mountaynes and plaines, wholly covered with snow, so that almost all mens mindes were possessed with a desire of returning for England." But Fotherby obtained leave to make another attempt, and rowed off with one boat to Red Beach. Gales, fog, and snow-storms drove them into Wijde Bay "and put us from the place where we wished to be. The thicke snowie weather continued all this time, which was very uncomfortable to us all, but especially to the men that rowed; and as the snow was noysome to their bodies, so did it also begin to astonish their mindes." They continued for eighteen hours amongst the ice, during all which time the snow fell, so they had to return toward their ship. An easterly gale blew them from the N.E. extremity of Red Beach across Broad Bay "to Point Welcome (which I so named because it is a place where wee often times rested when wee went forth in our shallops¹)." The Dutch had recently been here and had set up Prince Maurice's arms near Fotherby's cross, from which they had carried off the English sixpenny-piece. The sailors pulled down the Dutch arms, while Fotherby was climbing a hill, and nailed up "the Kings armes cast in lead."

Starting again, they explored Red-cliff Sound and found, about two leagues within it, on the east side, a good harbour. Fotherby landed and walked "two miles over stonie mountaynes...to bee satisfied concerning a point of land that shot into the Sound, whether it were an Iland or no, as by all likelihood it seemed to be: but when I came to the farthest part of it, I saw it joyne the mayne land, wherefore I called it Point Deceit, because it deceived mee so much." On the 19th of August they were again in the north harbour of Fairhaven, where they remained till the 27th. The weather then being fine and warm the *Thomasine* sailed and made another attempt to explore eastward, but only came as far as Wijde Bay. The pack there com-

¹ With the usual blundering about nomenclature in Spitsbergen this name has been transferred to the cape at the E. end of Red Beach.

pelled them to turn back, so they sailed for England and reached Wapping on October 4th.

The Dutch Company, like the English, had sent two ships on discovery this year. We must now turn to consider what they accomplished. It is a great misfortune that their log has not been preserved. The ships in question were *De goude Cath* of Amsterdam, Captain Jan Jacobsz. May, and *Den Orangienboom* of Enkhuizen, Captain Jacob de Gouwenaer. The pilot of the Enkhuizen ship was doubtless Joris Carolus, to whom the reader's attention must be directed for a moment. He was by no means an unimportant person. Apparently a native of Enkhuizen, he took part in the wars of his time, and lost a leg at the siege of Ostend, whereupon he gave himself up to the art of navigation, and became a pilot. He describes himself always as Joris Carolus, Stierman. The *stierman* was responsible for the navigation of the ship and kept the log. Carolus spent many years in the Indies in the service of the Oost-Indische Compagnie. He was a man of scientific mind, who collected all the information he could about matters concerning his art. When at length his years and feebleness prevented him from voyaging, he settled down at Amsterdam as teacher of navigation, and published a book of charts and sailing directions, now very rare, entitled *Het nieuw vermeerde Licht, gehenaemt de Sleutel van't Tresoor, Gesicht, ende vierighe Colom des Grooten Zeevaerts. Dat is claer ende seeckere beschrijvinghe van de Oost, West, Suydt ende Noordsche Navigatie, verciert met alle noodige perfecte ende duijdelijcke Pas-kaarten, Opdoeninghen der Landen, Haven, Kapen ende Rivieren, aenwijsinghe der Drooghten, Landen, Clippen ende Ondiepten; verscheijdentheijt der plaetsen, 800 deselve in mijlen, graden ende Compasstreecken van den omdereren syn ghelegen. Alles van nieuws oversien, verbeetert ende vermeerdert, door Mr Joris Carolus. Stierman. Leermester ende Caert-schryver van de groote en cleijne Zeevaert binnen de vermaerde Coopstadt Amsteldam. Ghedruckt tot Amsteldam. By Jan Janssen Boeckvercooper op't Water in de Paskaert. Anno 1634.* Of this work I can find no copy in England, but there is one in the Hague Archives, and I daresay there may be more copies in other Dutch

libraries. The book contains one or two autobiographical passages. Carolus states (p. 2) that all the soundings measurements, and drawings of the European coasts comprised in this extensive book of maps were not derived from the account of others, but from his own observations. When writing about Greenland (p. 147), he states that he does not believe it to be connected with Spitsbergen, because a constant current flows along the coast of Spitsbergen, coming from the north. "This I observed in the year 1614, in which year I was as far north as 83° "; whereby he concluded that a route might be found that way if it were sought for¹.

Carolus' claim to have attained a high latitude in 1614 was accepted by contemporary Dutch geographers. Thus on a globe, made in 1622 by Guljelmus Caesius², the following legend is written against a point in the ocean to the north-west of Hakluyt's Headland, about latitude 82° , "*Hollandi huc usque fuerunt a^o 1614.*"

Fotherby's journal contains some meagre but important references to the Dutch discovery ships. He states that he hastened up to Fairhaven early in June, "and so much the rather wee hasted because we understood that the Hollanders also set forth a ship on discoverie." On July 6th the Hollanders were riding "in the north harbour of Fairehaven, and were ready for the first opportunity to discover." Later he writes, "the ninth of August two ships of the Hollanders, that were appointed for northern discovery, were seene thwart of Faire Haven, sayling to the southwards." Thus the time during which the Dutch ships were absent from Fairhaven and when they professed to have reached lat. 83° N. was between July 6th and August 9th³.

It happens that we possess in Fotherby's journal an exact account of the state of the ice-pack off the north

¹ This is the first recorded observation of the great drift which Nansen used to carry the Fram across the polar ocean.

² I saw this globe both in the Doge's Palace and the Correr Museum at Venice.

³ It must be remembered that these dates are in the Old Style, used at this time by the English. The Dutch began to use the New Style already in 1582. Thus the corresponding Dutch dates, during which their expedition was absent from Fairhaven, were July 16th to August 19th.

coast of Spitsbergen during the month in question. So far from its having been an open season, it was one in which the ice was so tightly packed down upon the coast that even a whale-boat could not be taken beyond Wijde Bay (Sir Thomas Smith's Inlet). On July 6th Fotherby climbed a hill near Red-cliff Sound (Monier Bay), and "saw the ice lye upon the sea so farre as we could discerne, so that the sea seemed to be wholly toured with ice; save onely to the eastwards, we thought that we saw the water beyond the ice." On July 14th the edge of the ice was only two miles from Red Beach. On landing "we beheld great abundance of ice that lay close to the shore and also off at sea so farre as we could discerne." On August 1st they were just able to row to the shore near Grey Hook, but found the ice, off the mouth of Wijde Bay, "so close packt together that wee could not proceede any further with our shallops." Finally, on August 11th to 14th they found the conditions unchanged. It is obvious, therefore, that during this period no ship can possibly have sailed from Fairhaven, reached lat. 83° N., and returned, as (apparently) Joris Carolus claimed to have done.

As a matter of fact we know pretty well what Carolus and his crew were doing between July 6th–16th and August 9th–19th. They certainly visited Welcome Point (Biscayers Hook), for there Fotherby saw "Prince Maurice his armes" set up by them in the interval between two of his visits. They were also at Red-cliff Sound, doubtless on July 31st–August 10th. This bay bears two names on early Dutch maps. Some call it Monier Bay—a name obviously given in no other year than 1614, when Monier was Commissary-General of the Dutch fleet. On other maps, especially one published by Carolus himself, who may have been jealous of Monier, it is named St Lawrence Bay. Now the day of St Lawrence is August 10th, and that fell nine days before the day when they sailed away from Fairhaven on their return. We need, therefore, have little doubt that what Carolus did was to explore along the north coast eastwards. The coast-line he laid down is that shown on all the early Dutch charts¹ not copied from the

¹ Such as those of Middelhoven, A. Goos, and C. Doedsz.



View from the Zeuscche Uytiky, from Lamont's 'Yachting in the Arctic Seas.'

Muscovy Company's maps. He named the Groote or Groote Vogel (now Foul by error for Fowl) Bay, and he named Monier or Lawrence Bay (the Red-cliff Sound of Baffin and Fotherby). That was the furthest point he reached.

If other proof be required we can point to his own map.

It may be suggested that the figure 83° was an after-thought. It is not incorporated in the following important resolution of the States General of January 16th, 1615¹. "The request having been read of Mr Jooris Carolus, Stierman, recently sailed to Spitsbergen with Commissary Monier, to the whale-fishery, and having advanced his voyage towards the north pole to seek whether a passage could be found by the sea of Tartary to China and Japan, according to the map made by him, which he has presented to their mightynesses, beseeching them to take his work into consideration, and offering them his services zealously at all times at their bidding to make further explorations; after deliberation it is resolved that, having regard to the supplicant's good will and zeal in the service of the land and the foregoing services which he has rendered, he be granted the sum of 72 guldens," etc. The map in question does not appear to remain in the Dutch archives, but the same, or a manuscript copy of it, is in the "Département des cartes et plans de la marine" at Paris. It is signed "Joris Carolus Stierman Caertschryver tot Enchn" (Enkhuizen), and dated 1614.

It may be objected that, though Carolus cannot have reached a high latitude between July 6th and August 9th, he may have returned to the attack later in the season. But on August 9th the two Dutch ships in question were seen by the English passing the mouth of the South Gat (where the English were anchored), and "sailing to the southwards." The map shows whither they went, and reveals a discovery which historians of Arctic exploration have quite overlooked. East of, and in close proximity to Spitsbergen, it depicts two land-masses, divided by sounds from Spitsbergen and from one another. The western

¹ Printed by S. Muller, *Noordsche Compagnie*, Appendix, p. 380.

land-mass is named Onbekende Cust, the eastern Morfyn. Morfyn is a miswriting for Morsyn, by which the "Matsyn id est Plurimae Insillae" of Hondius' chart of 1611 is meant¹. Matsyn we know to have been a part of Novaja Zemlja (Matochkin) shifted in longitude. Carolus did not know this. He merely had Hondius' chart before him, with a piece of land flanked by islands vaguely marked. Sailing round the South Cape of Spitsbergen, which he named Generaels hoeck, and standing to the eastward he sighted land to the north (Whales Point of Edge Island). He erroneously made this land stretch almost across Wijbe Jans Water towards Spitsbergen. Continuing eastward, he passed Deicrow Sound, and then sighted Negro Point and the islands off it, especially noticing Half-moon Island, which he clearly marked on the chart. He erroneously exaggerated the width of the land he discovered, partly no doubt with the desire of bringing his Morfyn as nearly into the longitude of Hondius' Matsyn as he could. Thus it is certain that Edge Island was discovered not by Edge in 1616, but by Joris Carolus in 1614; if, indeed, it had not been already discovered by the energetic Thomas Marmaduke of Hull in 1613.

Matsyn was not invented by Hondius. It is marked on Gerardus Mercator's map of the polar regions, which includes Barents' discoveries, and therefore cannot be of 1569, as stated by Nordenskiöld in his atlas. It is also marked on the Molyneux globe in the Middle Temple Library, which marks Barents' wintering place of 1596-97, and cannot therefore be of 1592 as stated. Matsyn is likewise marked on other maps about 1600², and on Gerrits' map in "Detectio Freti" of 1612. In almost every case the coloration or shading indicates that Matsyn was regarded as belonging to Spitsbergen, whilst Willoughby Land is similarly connected with Novaja Zemlja. For this reason I am inclined to think that, though originally Matsyn was created out of Matochkin, it may have been

¹ In some maps Matsyn is written Marsyn, whence the transition to Morfyn is easy.

² Such as Franciscus Hoeius' MS. Map of the World in the Bodel Nyenhuis Collection at Leyden, reproduced in F. Muller's *Remarkable Maps* (C. H. Coote, ed.), Part I, Nos. 7, 8, which likewise introduces Barents' Spitsbergen.

identified with Edge Island and the Thousand Islands even before Carolus' voyage of 1614¹.

From Edge Island, where doubtless the ice-pack was encountered, the two Dutch ships sailed westward again toward Greenland. Running down the edge of the ice, they came in sight of Jan Mayen Island, which they believed themselves to have discovered. It appears on Carolus' chart with the name "Mr Joris eylandt." There is likewise a cape called Jan Meys hoeck, and a bay called Gouwenaers Bay, after the captains of the two ships. Jan Mayen Island was always getting discovered and named. Hudson first saw it in 1607, and named it Hudson's Touches. According to Scoresby, the whalers of Hull discovered it about 1611 or 1612, and named it Trinity Island. The Dutch tradition, recorded by Zorgdrager, was that Jan Cornelisz. May discovered it in 1611; but this is a mistake, J. Cz. May of 1611 having been confused with J. Jz. May of 1614, and the name Jan Meys hoeck given by Joris having been transferred to the island in the form Jan Mayen. Jean Vrolicq, the Biscay whaler, claimed to have discovered it in 1612; he named it Isle de Richelieu. Finally, in 1615 Fotherby discovered it again, named it Sir Thomas Smith's Island, and wrote the first detailed account of it². The Dutch in the great days of the fishery always called it Mauritius Island.

We thus find that the claims of Joris Carolus to have sailed to lat. 83° N. and to have discovered Jan Mayen Island cannot be maintained; but in compensation he deserves to be credited with the discovery of Edge Island, which he did not claim.

Muller (p. 171) has shown that, in the following year (1615), Joris Carolus made an important voyage to the north-west, which likewise has been forgotten. As in 1614 he anticipated Edge, so in 1615 Muller claims that he anticipated Baffin. In the service of the Noordsche Company, it appears he sailed through Davis Strait, and reached lat. 80° N. The results of the voyage were

¹ Matsyn is indubitably identified with Edge Island on H. Hondius' Map of the World of 1630, which is reproduced in F. Muller's *Remarkable Maps*, Part 2, No. 6.

² Fotherby in Purchas, Vol. III. p. 729.

depicted on a chart presented to the States-General, and referred to in a resolution of November 26th, 1615¹. This chart has not been found. In his *Nieuw vermeerde Licht* (p. 148), Carolus describes Baffin's Bay, and seems to imply in a rather vague fashion that he was there. He says it extends to 79°, and is then closed by land. That a Dutch expedition did penetrate north through Davis Strait in 1615 is certain, but I think Carolus' presence on board is doubtful, whilst after his disproved claim of having reached 83° north of Spitsbergen, other claims by him to have attained exceptionally high latitudes must be discounted. We must bear in mind that the object of voyages of discovery at this time was to find new trades, and appropriate the monopoly of them to the country, or even to the company, of the discoverer. Hence the exaggerated latitudes claimed. Not the cold veracity of science, but the lax morality of competitive commerce, inspired the records of these expeditions. The reports of pilots exploring for trading companies are not scientific documents. Geographers must distrust them, much as geologists distrust the reports of mining prospectors.

In 1617, Muller shows that Joris Carolus was again sent on discovery by the Delft, Hoorn, and Enkhuizen Chambers of the Noordsche Company. This time he claimed to have found two islands. The first, named New Holland, was between lat. 60° and 63° N. Unless this was a pure invention, it must have been a known part of the east coast of Greenland. The other, named Opdams Island, was in lat. 66° N., and twenty Dutch miles east of Iceland! The Noordsche Company applied to the States General for the monopoly of fishing off these islands, which were depicted on a map supplied by Carolus. The monopoly was granted by a resolution of October 28th, 1617². We are thus again driven to doubt Carolus' veracity. The single important discovery with which he ought to be credited was one which he appears never to have taken the trouble to claim.

As an author Carolus was really more important than as an explorer, but here again fame has been unkind to

¹ Printed in Muller's Appendix, p. 381.

² Printed in Muller's Appendix, p. 382.

him, and others seem to have reaped his proper renown. His book, *Het nieuw vermeerde Licht ende vierighe Colom des Grooten Zeevaerts*, has been practically forgotten, or rather the fact that the book was his has been forgotten. The book itself was issued again and again in different editions and translations, each of which was boldly appropriated by its editor as his own work. The original edition was published in 1634. Anthony Jacobsz, of Amsterdam, issued a new and revised edition of it in 1645, under the title *De lichtende Colomne ofte Zee Spiegel*. In 1648, Jacob Aertsz. Colom published it likewise at Amsterdam, and claimed to be its author. He entitled it *De Vyerighe Colom, etc....samengebracht en beschreven door J. A. C.* In the following year he published an English edition: *The New Fierie Sea-Colomne Wherein the faults, and mistakings of the former contrefaited Lichtning Colomne, are plainly discovered, and corrected.* J. A. Colom's second Dutch edition was issued in 1654. In 1655, Hendrick Donckers, of Amsterdam, stole, revised, and issued it. Finally, in 1671, John Seller, of London, published a slightly revised translation of Donckers' edition, under the new name, *The English Pilot*. Of all these editions the first is the only one that contains the original author's name, unless indeed Carolus was himself a pirate. We shall return to Carolus when we come to deal with the cartography of Spitsbergen.

CHAPTER VIII.

THE METHOD OF THE BAY FISHERY.

IN the winter of 1614-15 the Muscovy Company obtained from the English Government a prohibition against the import into England of whalebone by any but themselves¹. In December we read that Clement Edmondes was going to Holland to treat with the States about the Greenland Fishery, amongst other disputed matters². The Hollanders demanded an offensive and defensive league against Spain in the Orient, and in return were willing to settle the last Indian and Greenland (*i.e.* Spitsbergen) disputes; but King James adhered firmly to the peace with Spain, and the whaling troubles remained unappeased³.

We are very imperfectly informed about the events at Spitsbergen in the season of 1615. Baffin was sent away that year to seek for a north-west passage, but Fotherby was again in Spitsbergen at work for the Muscovy Company. The exploration he accomplished, however, was not on the Spitsbergen coasts, where he only entered known harbours, but in the seas to the west. He spent four days in July at Cross Road, refitting his vessel after a storm. There he met three Danish men-of-war and a pinnace, sent up under the command of the Scotsman, Sir John Cunningham, and piloted by an Englishman named James Varden, to assert the sovereignty of the King of Denmark over this part of "Greenland." Of

¹ *Record Office, Proclamation Coll.* No. 30.

² *Calendar of State Papers, Domestic*, 1611-18, p. 262. P. Jz. Twisck's *Chronijck*, II. p. 1684.

³ *Calendar of State Papers, Domestic*, Add. 1611-18, p. 284.

course, if Spitsbergen had been part of Greenland, the rights of Denmark would have been incontestable.

Gerrits relates that the English had gone so far in the first years of the fishery as to pay to the King of Denmark a tribute in acknowledgment of his rights, as against the Dutch. The English at first called Spitsbergen "Greenland" in ignorant good faith; they continued to do so, to assert that it was not a Dutch discovery, and so the name stuck to the island for the best part of two centuries. The real Greenland was called Groneland, Groinland, Groenland, or Engronland to distinguish it from its upstart namesake. By 1613 the servants of the Muscovy Company had probably satisfied themselves that Spitsbergen was an island. The English consequently changed their ground, asserted that it had been discovered by Willoughby in 1553, and declared it to be English by right of discovery and first occupation. It was formally annexed under the name King James his Newland. The annexation was not recognised by the Dutch, and was vigorously disputed by Hugo Grotius in several elaborate papers¹. The attempted English annexation, however, put a stop to the payment of tribute to Denmark, which, if paid in 1613, was certainly withheld in 1614. The appearance of Danish men-of-war in Spitsbergen waters in 1615 is thus accounted for. Neither English nor Dutch yielded to them. Some of their proceedings are described in a letter written by Fotherby from Cross Road to Edge in Sir Thomas Smith Bay, which has been preserved by Purchas².

The Muscovy Company this year sent up eight big ships and two pinnaces³. Benjamin Joseph and Thomas Edge were again in command. The Noordsche Company sent eleven ships under Adriaen Block, convoyed by three men-of-war. Thus the Dutch were again stronger than the English. The two fleets did not openly molest one another. We hear nothing about ships of other nations, but it does not follow that none came up. On the north coast of Spitsbergen is a point named Biscayers Hook by

¹ Muller, *N. Co.* pp. 206-9.

² III. p. 731.

³ According to Fotherby. Edge says two ships, but this figure can be proved wrong. Edge was often inaccurate.

the Dutch. Fotherby had named it Welcome Point in 1614. After 1618, or indeed after 1616, it can scarcely have been occupied by Basques, whilst in 1614 we know it was not. It is probable, therefore, that French or Spanish ships anchored there either in this or the following year, and so gave their name to the site. At this time they would not have interfered with the operations of English or Dutch, who did not yet use the north coast.

It is possible that all the fourteen Dutch ships did not come to Spitsbergen. The rediscovery of the island originally named Hudson's Touches, now known as Jan Mayen Island, but generally called Mauritius Island by the Dutch whalers and in official documents of the 17th century, seems to have suggested to the Noordsche Company that it would save trouble with the English and yield good profit if some of their ships went thither for whaling. In 1616 the whole Dutch fleet was sent to Jan Mayen; it is therefore reasonable to suppose that in the previous year an experimental visit had been paid to that coast by at least one or two Dutch ships. Most of the Dutch whaling fleet, however, went to Spitsbergen in 1615. Though afterwards it suited the convenience of the Dutch to claim that the *modus vivendi* of 1614 had been made not for one year only but to last till a settlement had been arrived at by the slow diplomatists, this year the Dutch themselves failed to observe its conditions, for their ships not only settled in Fairhaven and Horn Sound, but they also occupied Bell Sound in force and built a hut on the shore. This was probably the first building, intended to last, set up in Spitsbergen, though Muller states that the English had a hut on the shores of Sir Thomas Smith Bay (Foreland Sound) in 1613. The English this year confined themselves to the South Harbour of Fairhaven, Sir Thomas Smith Bay, and Ice Sound. Both fleets returned with a poor cargo.

The erection of permanent buildings for a whaling base was an important step. It was doubtless taken about the same time by both English and Dutch, as it corresponded with the needs of the whaling industry as then carried on. In the first years of Spitsbergen whaling the ships took up the copper boilers, casks, and so forth that they needed,

as well as the whale-boats and fishing gear. At the end of the season they brought them all away again. It soon became evident that much labour would be saved if the coppers, spare casks, tools, harpoons, lines, whale-boats, and other materials, could be left behind at some safe place at the end of the season. Moreover, as many men were employed on shore for weeks on end, it was simpler to house them there, whilst sheds were required to protect the coppers from wet whilst in use. At first tents were used for this purpose, and when permanent buildings were erected they were still called "tents" by the whalers.

The method of the fishery was this. At the beginning of the season the ships sailed up together. On arrival at Spitsbergen they scattered to their respective bays and stations, made ready for the fishery and then waited for the whales to come in. The ships were securely anchored near the shore, and the whale-boats were got ready. Men were set on suitable points of outlook to watch for the coming of the whales. The best early account of the Spitsbergen fishery is Fotherby's in his journal of 1613, from which the following description is quoted or condensed. An approximately contemporary Dutch account is reprinted by Muller (*N. Co.* p. 337) from Saeghman's pamphlet entitled *Drie Voyagien Gadaen na Groenlandt*.

"When the whale," writes Fotherby, "enters into the sounds our whal-killers doe presentlie sallie forth to meet him, either from our ships, or else from some other place more convenient for that purpose, where to expect him; making very speedie way towards him with their shallops. ...Comeing neare him, they row resolutelie towards him, as though they intended to force the shallop upon him. But, so soone as they come within stroak of him, the harponier (who stands up readie, in the head of the boat) darts his harping-iron at him out of both his hands; where-with the whale being stricken, he presentlie descends to the bottom of the water; and therefore the men in the shallop doe weire out 40, 50, or 60 fathomes of rope, yea, 100 or more, according as the depth requireth. For, upon the sockett of the harping-iron, ther is made fast a rope, which lies orderlie coiled up in the sterne of the boat, which, I saie, they doe weire forth untill they

perceave him to be rising againe; and then they haile in some of it, both to give him the lesse scope, and also that it may be the stronger, being shorter. For, when he riseth from the bottome, he comes not directlie up above the water, but swimmes awaie with an uncontrowled force and swiftnes; hurrying the shallop after him, with hir head so close drawen downe to the water, that shee seemes ever readie to be hailed under it. When he hath thus drawen hir perhaps a mile or more,—which is done in a very short time, considering her swiftnes,—then will he come spowteing above the water; and the men rowe up to him, and strike him with long launces, which are made purposedlie for that use. In lanceing of the whale, they strike him as neare his swimming finne, and as lowe under water as they can convenientlie, to pierce into his intralls. But, when he is wounded, he is like to wrest the lance out of the striker's hand; so that sometimes two men are faine to pluck it out, although but one man did easilie thrust it in. And nowe will he frisk and strike with his taile verie forceable; sometimes hitting the shallop, and splitting her asunder; sometimes also maihmeing or killing some of the men. And, for that cause, ther is alwaies either two or 3 shallops about the killing of one whale, that the one of them maie relieve and take in the men out of another, being splitt. When he hath receaved his deadlie wound, then he casteth forth blood where formerlie he spowted water; and, before he dies, he will sometimes draw the shallops 3 or 4 miles from the place where he was first stricken with the harping-iron. When he is dyeing, he most comonlie tourneth his bellie uppermost; and then doe the men fasten a rope, or small hauser, to the hinder parte of his bodie, and with their shallops (made fast, one to another) they towe him to the ships, with his taile foremost; and then they fasten him to the sterne of some ship apointed for that purpose, where he is cutte up in manner as followeth: Two or three men come in a boate, or shallop, to the side of the whale; one man holdeing the boat close to the whale with a boat-hook, and another—who stands either in the boat or upon the whale—cutts and scores the fatt, which we call blubber, in square-like pieces, 3 or

4 feet long, with a great cutting-knife. Then, to raise it from the flesh, ther is a crab, or capstowe sett purposely upon the poop of the ship, from whence ther descends a rope, with an iron hook in the end of it; and this hook is made to take fast hould of a piece of the fatt, or blubber: and as, by tourning the capstowe, it is raised and lifted up, the cutter with his long knife, looseth it from the flesh, even as if the larde of a swine were, by peece and peece, to be cutte off from the leane. When it is in this manner cleane cutt off, then doe they lower the capstowe, and lett it downe to float upon the water, makeing a hole in some side or corner of it, whereby they fasten it upon a rope. And so they proceed to cutt off more peeces; makeing fast together 10 or twelve of them at once, to be towed ashoare, at the sterne of a boat or shallop. These pieces, being brought to the shoare-side, are, one by one, drawen upon the shoare by the helpe of a high crane ther placed; and at length are hoised up from the ground over a vessell, which is sett to receave the oile that runnes from it as it is cutt into smaller peices; for, whilst it hangeth thus in the crane, two men doe cutt it into little peices about a foot long and half a foot thick, and putt them in the aforesaid vessel; from which it is carried to the *choppers* by two boies, who, with little flesh hooks, take in ech hand a peice, and so conveie it into tubbs, or old casks, which stand behind the *choppers*; out of which tubbs it is taken againe, and is laid for them, as they are readie to use it, upon the same board they stand on.

“The *choppers* stand at the side of a shallop, which is raised from the ground, and sett up of an equall height with the coppers, and stands about two yards distant from the furnaces. Then a fir-deale is laid amongst the one side of the shallop, within-board; and upon it doe they set their chopping-blocks, which are made of the whale’s taile, or els of his swimming-finne. Nowe the blubber is laid readie for them by some apointed for that purpose, as before is sett downe, in such small pieces as the boies doe bring from the crane. And so they take it up with little hand-hooks, laieing it upon their blocks; where, with chopping knives, they chop it into verie small pieces, about

an ynoch and $\frac{1}{4}$ halfe square. Then, with a short thing of wood, made in fashion like a cole-rake, they put the chopt blubber off from the blocke downe into the shallop; out of the which it is taken againe with a copper ladle, and filled into a great tubb, which hangs upon the arme of a gibbett that is made to tourne to and againe between the blubber-boat and the coppers. This tubb containeth as much blubber as will serve one of the coppers at one boiling; and therefore, so soon as it is emptied, it is presentlie filled againe, that it maie be readie to be putt into the copper when the frittires are taken out. These frittires (as wee call them) are the small peices of chopt blubber, which, when the oile is sufficientlie boiled, will look browne, as if they were fried; and they are taken out of the coppers, together with some of the oile, by copper ladles, and put into a wicker basket that stands over another shallop which is placed on the other side of the furnaces, and serves as a cooler to receave the oile being drayned thorow the said basketts. And this shallop, because it receaves the oile hott out of the two coppers, is kept continuallie half full of water; which is not onelie a meanes to coole the oile before it runnes into cask, but also to clense it from soot and dross which discends to the bottome of the boat. And out of this shallop the oile runneth into a long trough, or gutter, of wood, and thereby is conveyed into butts and hogs-heads; which, being filled, are bung'd up, marked, and rowl'd by, and others sett in their place. Then is the bung taken out againe, that the oile maie coole; for notwithstanding ye shallop is half full of water, yet, the coppers being continuallie plied, the oile keeps very hott in the boat, and runs also hott into the cask, which sometimes is an occasion of great leakage. Now concerning the finnes.

“When the whale lies floateing at the sterne of the ship, where he is cutt up, they cut of his head, containing his tounge and his finnes, comonlie called *whalebone*; and by a boat, or shallop, they towe it so neare the shoare as it can come, and ther lett it lie till the water flowe again; for, at high waters, it is drawen further and further upon the shoare by crabs and capstowes ther placed for

that purpose, untill, at a lowe water, men maie come to cutt out the finnes; which thing they doe with hatchetts, by 5 or 6 finnes at once. And theise are trailed further up from the shoare-side, and then severed ech one from another with hatchetts, and by one, at once, are laid upon a fir-deale, or other board, raised up a convenient height for a man to stand at, who scrapeth off the white pithie substance that is upon the roots, or great ends, of the finnes, with such scraping-irons as coopers use; being instruments very fitting for that purpose. Then are they rubbed in the sand, to clense them from grease which they receave when the heads are brought to the shoare-side: for, whilst the whale is in cutting up, his head is under the water, and his finnes remaine cleane; but being brought neare the shoare and grounded, then doth the grease cleave unto them at the ebbing or falling of the water, which is alwaies fattie with blubber that floats upon it continuallie. When the finnes are thus made cleane they are sorted into 5 severall kindes, and are made up into bundells of 50, contayneing of ech sorte 10 finnes. These bundles are bound up with coards; and upon ech of them ther is tied a stick, whereon is written some number, and the companie's mark sett; and so they are made readie to be shipped."

From the foregoing account it is easy to see how needful some kind of permanent base was for the whalers so long as the whales were good enough to come to them into the bays of Spitsbergen. The Dutch therefore in 1615 built themselves a hut in Bell Sound, on the shore of the bay they called Schoonhoven, the modern Recherche Bay. The English about the same time built a similar hut at Sir Thomas Smith Bay, apparently in Cove Comfortless. Perhaps both English and Dutch likewise now built huts in Fairhaven near their respective anchorages. It is probable, but not recorded.

The whalers were ordered to bring home anything of value they found on the shore. Sometimes, as we have seen, they brought home a live reindeer. Occasionally we read of them returning with what they at first called a "unicorn's horn." This, of course, was the spirally twisted "tusk" of the male narwhal—"mighty Monoceros with

immeasured tayles¹”—as the whalers were not long in discovering, though a superstitious public were slow to grasp the fact. Perhaps the English whalers in 1615 brought home such a horn from Spitsbergen. At all events the East India Company's fleet which sailed from England on the 9th of March, 1616, and reached Surat on September 24th carried amongst other treasures for sale in the Indies a “Unicorn's Horn.” Several of the Muscovy Company's adventurers were likewise adventurers in the East India Company. The horn was offered for sale at a great price, as an antidote to poison, to Jehangir's son, the future Shah Jehan, but he refused to buy it. It was next offered to Mukarrab Khan for 5,000 rupees. He tried its effect on a poisoned pigeon, goat, and man, who all died! So he too refused to buy it. It was then sent to Achin, where also no purchaser could be found. It is worth mention in this connexion that Roe often cites “teeth” among the commodities sold by the English in India. Doubtless walrus tusks are intended—another Arctic product thus early exported to tropical regions.

The Muscovy Company again sent eight ships and two pinnaces to Spitsbergen for the season of 1616, under the command of Thomas Edge. He reached Spitsbergen about June 4th, and, as he states in the account printed in Purchas (III. p. 467), “appointed all his ships for their severall harbours...having in every harbour a sufficient number of expert men and all provisions fitted for such a voyage. This yeare it pleased God to blesse them by their labours, and they full laded all their ships with Oyle, and left an over-plus in the countrey, which their ships could not take in. They imployed this yeere a small pinnasse unto the eastward, which discovered the eastward part of Greenland (*i.e.* Spitsbergen), namely the Iland called now Edges Iland³, and other Ilands lying to the northwards as farre as 78°; this pinnasse was some 20 tunnes and had twelve men in her, who killed 1,000 sea-horses on Edges Iland, and brought all their teeth home

¹ See Beddard's *Book of Whales*, p. 246.

² *Vide* the Hakluyt Society's *Embassy of Sir Thomas Rowe to India*, p. 290, and references in the footnote.

³ Really discovered in 1614, if not in 1613, as above stated.

for London. This is the first year that ever the Company full laded all their ships sent to Greenland."

It will be observed that Edge says nothing of trouble with foreign competitors this year. Dunkerque¹ we know to have sent out seven vessels, but there is no record whither they went. Evidently Edge did not meet with them. "The Hollanders," he writes, "had this yeere in Greenland (Spitsbergen) foure ships, and those kept together in odde places, not easily to bee found, and made a poore voyage." The fact was that the Spitsbergen voyage of the previous year had been unprofitable to the Dutch. Perhaps they recognised that contention with the English involved a loss of time ruinous to the voyage. Moreover they feared an Anglo-Danish combination against them, such as in fact was almost brought about in 1621². For some or all of these reasons the Noordsche Company decided to make Jan Mayen the head-quarters of the season's work. Zorgdrager³, writing almost a century later, states that the Dutch Jan Mayen fishery began in 1611 and was very profitable till 1633. The date 1611 is apparently a few years too early. The Jan Mayen fishery was not definitely established till 1616.

We learn from the instructions to the commander of the convoy to the Dutch whaling fleet this year, Jan Jacobsz. Schrobop⁴, that the ships, convoyed by four men-of-war, were first to sail to Jan Mayen and all make their voyage there, if there were whales enough. If not, one ship was to sail to Fairhaven, one to Magdalena Bay, one to Green Harbour, and one to Bell Sound. This last was to take possession of the hut, shallows, casks, and other provisions belonging to the Company which had been left behind there in 1615. They were ordered to set up their fishery and cookery, even though the English should also lie there and try to hinder them. In that case they were to call upon one of the men-of-war for help.

These were the four ships mentioned by Edge as in Spitsbergen waters. When the ship ordered to Bell Sound

¹ Hamy, *loc. cit.* p. 15.

² Muller, pp. 210, 242.

³ German edition, pp. 99, 100.

⁴ Muller, *N. Co.* pp. 137, 150, 373. See also *Mémoire* of the N. Co. in Muller's *Mare Clausum*, p. 371.

arrived from Jan Mayen, probably rather late in the season, she found the Dutch hut and belongings already appropriated and in occupation by the English. No man-of-war being at hand to help, the Dutch were unable to regain possession of their property. The hut thenceforward, as we shall see, remained in possession of the English. If the Dutch were right in claiming that the agreement of 1614 was intended to last, and in demanding its observance, they were wrong in settling at Bell Sound, contrary to that agreement. They were logically compelled either to give up the hut or the agreement; they appear to have chosen the former alternative. The season's venture was very profitable to the Muscovy Company, whose ships killed 130 whales¹.

It is probable that the Dutch took steps this year to make permanent settlements on Jan Mayen. They had the whole island to themselves, and were strong enough to chase interlopers away². The different Chambers of the Noordsche Company built their settlements at different points, mostly along the north-west coast of the island. The chief settlement was at North Bay (English Bay of our chart). There were others in Smith Bay, Marimuts Bay, and West and East Cross Coves. In North Bay were no less than "ten tents" equipped with whale-boats, coppers, ovens, cooling vats, and so forth. It was here in 1633 that the seven winterers died whose pathetic journal was often printed³. Two of the cookeries belonging to the Amsterdam Chamber were fortified to resist "Biscay privateers"⁴. In August, 1699, Zorgdrager visited this settlement, then long ago abandoned. "I saw," he writes (p. 282), "about twenty shallops still lying beside one another, as in Holland they are laid up for the winter; likewise two great boats, some oil-casks, and a great heap of thick ships' cables, probably four or five of them piled on one another. Everything, however, was ruined, the boats fit only for firewood, and the rope for making paper." He says that in its great

¹ *Calendar of State Papers, Domestic*, 1611-18, p. 392.

² In 1618 King James gave the Jan Mayen fishery to the men of Hull, but it was a gift they could not take possession of.

³ Churchill, Vol. II., contains an English translation.

⁴ See Muller, *N. Co.* p. 151.

days Jan Mayen yielded so much train-oil that in one year two full extra cargoes of 1,000 quarteels each had to be fetched away in a special ship that made two voyages for that purpose in one season. It seems as though the settlement had been suddenly abandoned. In 1632 the ice prevented ships from reaching the island. That may have happened several years in succession. Moreover the whales learned to shun the dangerous locality. In any case it seems strange that such a quantity of valuable stores should apparently have been forgotten and never fetched away.

CHAPTER IX.

TROUBLES WITH THE DUTCH IN 1617.

AFTER the season of 1616 the Noordsche Company's monopoly expired. They accordingly applied to the States General for a renewal of it, which was granted for a period of four years. At this time Zeeland Chambers, representing Flushing, Middelburg, and Veere, were taken into the great Company. As they were the last to come in they had the last choice of stations. Apparently there was judged to be no room for them at Jan Mayen, so they had to take their chance at Spitsbergen. The three Flushing ships, with whose adventures we shall chiefly be concerned, were the *Noah's Ark*, 200 tons, Jan Verelle, master; the *Pearle*, Huybrecht Cornelisz, master; and the *Fox*, Cornelis De Cock, master. It is evident that the English knew of the intention of the Zeelanders to go up, and were prepared to meet them. The Zeelanders of Middelburg and Veere went to Dutch Bay, but the Amsterdam men would not have them there, so they moved further eastward and settled on one of the Norway Islands. Their look-out point bore the name Zeeusche Uytkyk thenceforward on all Dutch charts. At the east end of the Outer Norway is a hill 700 feet high, commanding a fine seaward view¹. At the foot of it Lamont found traces of an old Dutch cookery, which may have been that of these Zeelanders.

How many Amsterdam ships went to Dutch Bay we do not know. The north harbour there had by now become one of their recognised stations, where, as at Jan Mayen, they had probably already built some huts. Though they

¹ See illustration facing p. 266 in Lamont's *Yachting*, and read pp. 266, 267.

forbade the Zeelanders to settle near them, they allowed two Danish whalers to do so, anxious perhaps to prevent them from making common cause with the English. It appears, however, from Heley's letter that the Danes had to pay with half their cargo for the privilege of fishing. The two ships "made one hundred and odde tunnes of oyle and laded one ship for Copenhagen, the other with halfe the oyle and finnes for Amsterdam, and left the country about the 6th or 7th of August." This Danish settlement on Amsterdam Island lasted for some years. The arms of the two countries nailed on posts were set up on shore, marking the limits of the settlements, Amsterdam being to the east, the Danish warehouse and huts to the west¹. Thus by the year 1617 we may say that the whaling station, which came to be known as Smeerenburg (Blubber-town) was definitely founded.

The main body of the Dutch fleet again went to Jan Mayen, whence some ships perhaps came on to Smeerenburg later in the season, as was the regular habit in after years; for the general movement of the whales was from west to east as the season advanced. Dunkerque again sent out seven ships to the whale-fishery², but of their doings we hear nothing. One interloper came from Aldborough, in charge of Master Cudner, who was up in 1613, and doubtless every year since. "He rid in Portnick" (Safe Haven), writes Heley, "where he killed eleven whales, and made some seventie and odde tunnes of oyle (which is laden aboard him) and his finnes." Heley intended to have overpowered Cudner, displaced his crew, put some of the Muscovy Company's cargo on board him, and sent him to London; but the armed ship did not arrive in time. As it was, he offered to pay Cudner to carry some of his stuff to London, but he refused. "His voyage," Heley adds, "is by the thirds, so that his men will rather dye than forgoe that they have got."

The Muscovy Company's fleet consisted of 13 ships and 2 pinnaces. The most connected account of the principal events of the season is that contained in the "depositions of John Weddel, *alias* Duke, of Lymehorst, mariner, and

¹ Wassenauer, *Hist. Verh.* v. 157, IX. 124.

² Hamy, p. 15.

William Heley of London, draper, taken before Sir Henry Marten, Judge of the Court of Admiralty, on behalf of the Muscovy Company, concerning their voyage to Greenland (Spitsbergen) in the ship *Dragon*, May to July, 1617, and their attempts to compel the Hollanders to desist from whale fishing there." This is the first time we hear of Heley in Spitsbergen. We often come across him in future years in the capacity of supercargo. He was a young man at this time, aged 22. Apprenticeship to a draper seems a curious introduction to Arctic adventure. Purchas (III. 737) knew him and obtained much information and many papers from him, including "Whole Elaborate Poems" written by him in Spitsbergen.

The deposition runs as follows¹:

"In the Moneth of Maie 1617 about the 19th daie the English fleete haveing made the land (Spitsbergen) descried a shipp (the *Fox*) plyeing out of the yce with whom they desired to speake, and comeing up with him found him to be of Flushing, the master's name Cornelius de Cooke for whome the Captaine (Edge) of the English sent his boate, and demaunding of him if he had byn in any harbor in the country he answered noe, but looseinge companie of his consorts thought the English fleete had byn them, tellinge the English Captaine that there were seaventeene sayle of Fleminges or Hollanders upon the coast², and all or most part of them got into harbour as he thought whoe came to make a voyadge on the whale. The Captaine of the English showed him his Majestie's graunt to the Companie and willed him by virtue thereof to departe, for if he

¹ The authorities for the following events are:—

Depositions of Dutch and Basque sailors from the *Noah's Ark* of Flushing, printed in Muller's *N. Co.* pp. 402-406.

Short account of the troubles of 1618 included in the *Coorte Deductie*, etc. of the Noordsche Co. to the States General, 18th Sept. 1624, printed in Muller's *N. Co.* p. 395.

Wm. Heley's Letter of 12th Aug. 1617, printed in Purchas III. p. 732.

Depositions of English Witnesses from the ship *Dragon*, *State Papers, Domestic*, James I, Vol. 95 (Jan. 1618), No. 16, for the most part printed above.

Edge's account in his *Briefve Discoverie*, printed in Purchas III. pp. 462-473.

Muller (*N. Co.* p. 212 note) had access to other depositions by Zeeland witnesses.

² This, of course, was bluff. Most of the ships were away at Jan Mayen.

should chance to meete him in the Contrie he wold dis-furnish him of all his provision, and he requested him to certify his councitriemen if he chanced to meete with any of them, and then sent him aboard againe and soe departed."

From the Flushing witnesses we learn that Cornelis De Cock nevertheless entered Horn Sound on May 29th, and the other two Flushing ships, the *Noah's Ark* and the *Pearle*, came in on the following day. On the 1st of June the Muscovy Company's ship *Nathan*, Henry Smith master, also arrived there. "The said Flemings killed whales and did what pleased themselves, settinge the Englishe at naught, whereupon those of the said English shipp wished them to surcease killinge whales and depart the contrie, for if the Captaine of the English understood thereof he would take their provisions from them. They replied, if they did he wold make some of the English plompe for it, and that they wold staie and fish there in despight of the English."

The Zeelanders sent a boat off to Bell Sound expecting to find a Dutch man-of-war there, and so get help. All they found was the English in possession, who thus learnt of their presence at Horn Sound. Smith also "sent word to the Admirall (in Bell Sound) willinge him to take some order with the Fleminges, otherwise his voyadge wold be overthrowne, and informed him of their threateninge words, unto whom the English Captaine writ a note willinge him to depart and not stay there, which if they refused he wold deale with them as formerly he had promised." Meanwhile Verelle of the *Noah's Ark* had killed two whales, landed his coppers, and got to work. The other two ships were likewise doing well. On receipt of Edge's letter the Zeelanders "promised faithfully to surcease killinge whales there and presently to depart and leave the contrie, willinge the English Capt. to give a testimoniall under his hand of their beinge there. And soe for three or four daies went away."

The Zeelanders state that they accordingly went for Bear Island, where they met an English interloper whom we learn from Purchas to have been Marmaduke of Hull. Purchas says that Marmaduke persuaded them to return, but the Zeelanders say nothing about this. They explain that they returned because they could find no whales to the

southward. The Muscovy Company evidently believed this gossip about Marmaduke and were correspondingly annoyed. This perhaps accounts for their petition to the Privy Council of Jan. 22, 1618¹, in which they protest against "divers of the towne of Kingston upon Hull, who have ever (been) and now are most troublesome and the greatest hinderers of the Companie." The Hull men were duly ordered not to interlope, but they seem to have paid no attention to the inhibition.

The Zeelanders sailed back to Spitsbergen, intending, as they said, to find some place where the English were not, but finding none suitable they returned to Horn Sound, killing two whales on the way. It appears that they hoped to find a Dutch man-of-war arrived there in the meantime and able to defend them. But they only found two English ships. They state, but it is an obvious untruth, that they obtained permission from them to settle on the other side of the bay (*i.e.* on the north side) and to fish in the sea outside the cape (the Lord Worcester's Point of Baffin's map). On their return the Zeelanders "followed their busines, hindringe the English what they cold from makinge their voyadge in that harbor, whereupon a second information was sent to the English Captaine of their insolent behavior. Who upon receipt thereof sent his Vice-admirall (W. Heley) with the said shipp the *Dragon*, givinge him order to drive them from thence and disarme them of their provisions. But the windy weather proveinge contrary it was the latter end of July ere the English Viceadmirall cold get into that harbor soe that the said Cornelist de Cooke and one of his consorts were departed full laden with blubber, and carried away two whole whales uncut up at their sternes one day before the said Vice-admirall got thither, and left their Admirall, beinge a ship of Flushing (the *Noah's Ark*), the Captaine and master John Verile, and owner Giles Bishop, behinde to outface and try what the English wold doe." The Zeelanders say that Verelle could not sail with the others because he had most of his stuff still on shore, to wit 120 hogshead of blubber, and all his whalebone, etc. In the ship he had

¹ British Museum MSS. Lansd. 142, f. 389.

107 or 108 hogsheads of blubber and $2\frac{1}{2}$ whales lying alongside. This for obvious reasons is probably an outside estimate. Purchas states that the Zeelanders hurried away, because they "had notice by an English Surgeon" that Heley was coming with his armed ship.

"The said English Viceadmirall at his comeinge thither sent for the said Flemish Captaine aboard, and demanded of him why contrarie to his promise and handwriteinge he had not departed and left the contry at his first warneinge when he made a show of goeing away. He replied he writ and promised he wold presently depart the contrie and be gon yet he preposed to retorne ymediately, for what did they wey the words or spece of the English there. Then the Viceadmirall told him seeinge he had dealt soe dishonestly and had given out threatening words against him he wold take those things he had gotten in the Contrie from him. He answered if he did he wold make some of the English fleete pay for it. Whereupon the said English Viceadmirall finding him soe obstynate and seeinge some Blubber lying ashore put up into cask and two whale there uncut up, the blubber beinge but a small quantity, by reason of the other twoe ships soe late departure, did carry the said Blubber and whales over to the other side of the harbor and there left the Blubber and cask ashore, never making any use of it, and the whales weere driven ashore in a storme and all lost not saveinge any of them, as likewise a copper which was sent ashore and there swallowed in the sandy beach¹ and never found againe by the English nor by them never possessed nor used. And for knives launcs harping yrons and such like provisions, there lay some few ashore which weere overworne, not serviceable nor beinge all to the valew of xxxl. which the English doth not knowe what became of, haveing enough to do to looke to their shippes which rid there in a storme on life and death."

I am afraid this account of the spoiling of the *Noah's Ark* is not strictly accurate. The Zeelanders say that the English took most of their equipment and all their blubber and that they saw them boil it down into oil and lade it aboard their own ships. This is doubtless nearer the

¹ The beach of Horn Sound is not sandy.

truth, for Heley in a private letter, written from Safe Haven (Ice Sound) on the 12th August to Mr Decrow, one of the London adventurers, says: "We tooke a ship of Flushing called the Noah's Arke...having out of him two hundred hogsheads of Blubber and two whales and a halfe to cut up, a great Copper, and divers other provisions, and sent him away ballasted with stones." The deposition of the four Basques confirms the Zeelanders' story and further states that the English threatened to hang the Basques at the end of their bowsprit, and to tie them hand and foot and throw them into the sea; that they also made the Basques row the whales 2 miles across the sound to the English ships, and that they took from them "a copper, ladles, harpoons, lances, knives, cordage, 4 shallops, 6 cast-iron pieces with their carriages, musketts, powder, 2 windlasses, and many other things." Incidentally they mention that the English killed nine whales in one day. Purchas says that the ship contained ten cast pieces and that six were taken to prevent reprisals on the way home. They were returned in London.

In the "said storme the Fleminge Cables breakinge and he forced within halfe a cables length of the shore, haveinge noe comand of his men, had there utterly perisht and byn cast awaie if the English Viceadmirall had not forced his owne men to the greate danger of their lives to carry out a warpe and laye out an anchor for the Fleminge and heave him further from shore when never a Flemynge durst nor wold once stirr his foote. And soe by that good meanes saved his shipp. And for his shallops the English never sawe but two he had, one of which is left remaineinge in the contrie and the other the English brought home, for which they gave him an English shallop. Likewise the said Viceadmirall sent him his ship boate to ballast his ship (the Fleminge haveinge non) which boate was quite spoyled and was not serviceable for the English afterwards in tyme of necessity when they had use for her, and did otherwise deale very kindlie with him, and soe in friendship departed from him. But assone as the English Viceadmirall was gon the Flemynge sent him word the next year he wold hange him at his yard arme and many other threateneinge speeches, which was all the requittall for

saveinge his shipp and doeing him diverse other kind pleasures¹."

After sending off the *Pleasure*, deeply laden and charged to watch the Aldborough interloper, and despatching the *Bear* out of Cross Road to Hamburg, and the *Greyhound* to London, Heley was ready to sail home in the *Dragon* in a very happy frame of mind. "Through God's blessing," he wrote on August 12th, "our voyage is performed in all the harbours of the countrie this yeere, with a greater overplus than our ships will carry, so that in some places wee must of force leave good store of oyle and blubber behinde for the next yeere. We are all for the most part readie to set sayle, being full laden, onely I desire to see the coast cleere of Interlopers whereby our provisions may be left in securitie....The whales killed this yeere in the Country are about 150 in number, and the oyle made will be about 1800 and odde tunnes, besides the blubber left for want of caske."

Heley further relates that "the small ship John Ellis is returned from the south-eastward, having made some further discovery and killed some 800 sea-horse (walrus), and laden the teeth and 30 tunnes of hides and the rest of his lading in oyle. He brought some sea-horse blubber with him. He met with Thomas Marmaduke of Hull in those parts, who had not done anything when he saw him towards making a voyage, but went for Hope Island, and no doubt but hee will doe much spoile there." Purchas has preserved a statement of Edge's that a ship of 60 tons with a crew of 20 men "discovered to the eastward of Greenland (Spitsbergen) as farre to the northwards as 79 degrees, and an Iland which he named Witches Iland, and divers other Ilands" as shown on the Muscovy Company's map which Purchas printed. The map depicts a pinnace sailing east of South Cape and a whale-boat rowing up Wybe Jans Water. This is all the information we possess about what must have been a most interesting expedition.

It is unfortunate that so little has been recorded about the early explorations of East Spitsbergen. Dutch and English alike sent ships to explore there year after year, but both companies kept their information secret. We know that Hope Island and some other islands were dis-

¹ Signed "John Weddell, Willm: Heley."

covered in 1613. I have shown that Carolus mapped the south coast of Edge Island in 1614. In 1616 a pinnacle rediscovered Edge Island and discovered "other islands lying to the Northwards as farre as 78°"; and now this year further discoveries were made up to 79°. A number of names still lingering on our maps witness the activity of the Muscovy Company's servants. There is the contested Wiches Land and there are Alderman Freeman's Inlet and Deicrow Sound, all named after adventurers of the Company. Its governor, Sir Thomas Smith, gave his name to the islands in what is now known as Ginevra Bay, but the name has been transferred to some small rocks further south. Edge Island and Heley Sound preserve the names of those well-known navigators. Stone's Foreland was another name of the date. It was applied to the east end of the south side of Edge Island. It survives in the modern Norwegian and Swedish Stans Foreland, whereby they (and the Dutch before them) wrongly designate Edge Island. Lee's Foreland and Cape Barkham were likewise probably named after persons of the same date.

It is likely, as I have pointed out, that the first discoverers to the eastward wrongly identified Edge Island and its fringe of rocks and islets with the "*Matsyn id est Plurimae Insillae*" of Hondius' and other maps. Matsyn, as we know, was really Matoschyn, part of Novaja Zemlja, discovered by Sir Hugh Willoughby in 1553. It was set down on the maps so much too far to the west, that to confuse it with the later discovered Edge Island was very easy. This confusion was probably the reason why the Muscovy Company for fifty years kept claiming that Spitsbergen had been first discovered, not by Barents, but by Willoughby more than 40 years earlier.

Of all the explorers of this region Thomas Marmaduke of Hull is the one we should like to know more about. Evidently he was one of the boldest and most successful Arctic navigators of the day. Notwithstanding the opposition of the Muscovy Company he took his ship yearly into the forbidden waters and found out new fishing grounds for himself. Sometimes the Muscovy Company seems to have employed him. He was the first to land at many points along the north coast in 1612. He was one

of the first to sight Jan Mayen. Probably it was he who discovered Hope Island in 1613. While the Muscovy Company's ships were quarrelling with the Dutch on the west coast he was quietly "making his voyage" to the eastward. Duke's Cove (apparently the Gotha Cove of our chart) may have been one of his resorts on the west coast of Edge Island.

A comparison of the Muscovy Company's map with the statements of Heley and Edge above quoted enables us to form a rough guess as to the exploration accomplished this year. It is clear that the south-east cape of Edge Island was not reached, still less rounded, for if it had been it would have been marked on the map. Moreover the Ryk Yse Islands must have been discovered, and they, as we know, were not seen till about 1640-45¹. It follows *a fortiori* that this expedition did not discover the islands now known as King Carl's Land from the south. It was not in this direction that they reached 79° N. and "discovered an Iland which he named Witches Iland." The map indicates, what is likewise *primâ facie* probable, that they devoted chief attention to the shores of Wybe Jans Water, which they followed to its northernmost extremity, where they found the mouth of the narrow and dangerous Heley Sound. Unfortunately they did not navigate this sound or walk along it to its eastern extremity; but it is clear that they landed here on Barents Island and doubtless both hunted the reindeer, which the map depicts, and ascended to some high point of view on a clear day. Heley Sound lies in about 78° 36' N. They put it in about 79° 10' and made it run N. instead of E. In fact they made the same mistake that was made with Hudson's observations when the north coast which runs east was twisted through a right angle and described as running north, longitude being thus turned into latitude and the true latitude of 80° thereby increased to 82°. The north end of the Wybe Jans Water runs far eastward. If it is swung round through a right angle and stretched a little it can be made almost to reach 79° N. This, and a little more than this, was what the Muscovy Company's cartographer did to make the map agree with the men's statement that they had reached 79° N.

¹ Zorgdrager, German edition, p. 200.

From the summit of the hill they climbed, they saw in the far distance the south point of North East Land, now called Cape Mohn. They named the land Sir Thomas Smith Island. The day must therefore have been very clear. Approximately at the same distance but 30 miles further south lie the islands now called King Carl's Land. It seems highly probable that they saw them also and this was the land named Wiches Land. Unable to guess its distance and perhaps regarding it as the extremity of a larger land-mass they brought only a verbal account of it, which the Muscovy Company's cartographer rendered in the blundering fashion that has caused so much difference of opinion between English and Swedish geographers. The Admiralty chart is therefore right to retain the name of Richard Wiche attached to this group of islands and to confine to one of them the name of Kong Karl¹.

The events of 1617 at Spitsbergen of course gave rise to plenty of discussion and correspondence at home in the following winter. The directors of the Muscovy Company seem to have concluded that the best thing for them to do was to form a permanent settlement in the north. To that end it appears they obtained, through Sir John Merrick, British ambassador, a license from the Czar of Russia, "for certaine of his subiects called Lappes, a people lyveinge in a very cold clymate and a barraine soyle," to be sent with some English to dwell at Spitsbergen². We hear no more of this wise proposition. It is known that the Muscovy Company tried to bribe men by the offer of great rewards to winter in Spitsbergen, but in vain. Then the Company obtained some criminals condemned to death, who were promised a reprieve, on condition that they should spend a whole year in Spitsbergen. They were to be well supplied with food, and other necessaries and to be generously rewarded on their return after the year. The men were shipped to the north, but when the time came for them to be left behind, the horror of the place was so heavy upon them "that they preferred to return home and be hanged rather than stay on those

¹ See Nathorst's *Trå Somar*, p. 228 ; *Geographical Journal*, Aug. 1899 pp. 155, 177.

² *State Papers, Domestic*, James I, Nov.—Dec. 1617, No. 70.

desolate shores¹." We are not informed in what year this happened, but it must have been between 1625 and 1630².

As soon as the Zeelanders arrived home they made complaint to the States General, which took up their case and sent a representative to England to demand redress. About the same time Sir Andrew Sinclair arrived as ambassador from the King of Denmark to challenge the sovereignty of Spitsbergen³. The trouble with Denmark seems to have been compromised by giving to Sir John Cunningham⁴, a Danish naval officer, and to some Scotch partners, a Scotch patent, permitting them to fish for the whale at Spitsbergen and to import their produce into Scotland. No doubt Cunningham intended to use the Scotch patent as cover for Danish whalers, after the casual fashion of those days. The Zeeland representative fell in with Sinclair or some of the Scotch adventurers and concluded an arrangement for common action. They formed a company together, hired many of the Muscovy Company's servants and contracted for shipping and stores. Naturally the Muscovy Company did not appreciate the threatened competition. They approached the kindred East India Company and the two united to put up capital for the next year's fishery. This action "bluffed" the new company, which at once broke up, when the Muscovy Company undertook to take over their contracts for stores and pay ready money for them. But the result was obtained at too great cost. The enterprise was now over-capitalised and the bad season that followed caused the ruin of the Company. The Zeelanders, thus denied compensation, and disappointed in their hopes of getting round English opposition, looked forward to the season of 1618 more enraged than ever.

¹ Pelham, *God's Power*, etc.

² After the publication of Purchas (*vide* III. 472) and before Pelham's adventure.

³ *Calendar of State Papers, Domestic*, Add., p. 553, 7th March, 1618.

⁴ "John Cunningham, a Scotchman of notable family, was Captain of the *Trost* and Chief Commander of the expedition (the Danish expedition to Greenland in 1605 and 1606). He is said to have travelled much and far before he settled in Denmark, where he became a Captain in the Navy in 1603. He left the service in 1619, when he was made Lehnsmann of Vardöhuus, that is, Governor of the Province of Finmarken, in the north of Norway. This post he retained until 1651, and he died soon after at an advanced age" (C. C. A. Gosch, *Danish Arctic Expeditions* (Hakluyt Society), Vol. I. p. xxviii).

CHAPTER X.

TROUBLES AT SPITSBERGEN IN 1618.

AFTER all this trouble, the Muscovy Company's fleet only consisted of 13 ships and 2 pinnaces¹, whilst the Noordsche Company sent out no less than 19 ships to Jan Mayen and 23 to Spitsbergen². They carried three commissions, one from Maurice, Prince of Orange, permitting them to whale-fish in the places they intended without molesting any other nation, one from the States General authorizing them to defend themselves if interfered with, and one from their owners, "wherein they gave them order not only to fish and defend themselves but also if they were disturbed by the English or anie other to the damage of a line to the value of a pennye to take their goodes and bringe them and the chiefe men and shipp and all with them to Holland."

The numerous accounts we possess of the events of this year³ enable us to discover that, at the opening of the season the two fleets were distributed as follows: at Horn Sound, 2 English and 5 Rotterdam ships and one Dutch man-of-war, the *Tunny-fish*, Captain Johnson; at Bell Sound, Edge with 3 or 4 English ships, one ship of Hoorn, and one of Enkhuizen; at Green Harbour, 3 Dutch ships;

¹ Edge in his affidavit says 17.

² Affidavit, 15th Sept. 1618 (*State Papers, Domestic*).

³ The Dutch authorities for the events of this season are quoted by Muller, *N. Co.* p. 217 note. He gives an abstract of their statements. For the English side see Edge, *Dutch Disturbance*, in *Purchas III.* pp. 466-470, and letters from Salmon, Sherwin and Beversham, printed in the same volume, p. 733. *State Papers, Domestic*, James I, Vol. 99 (Sept. 1618), contains a number of documents (No. 40 is the most important), depositions of eye-witnesses of the troubles at the Foreland, Bell Sound, and Horn Sound, etc., from which numerous quotations are made above. Most of these documents are printed in full in Sir Martin Conway's *Early Voyages to Spitsbergen* (Hakluyt Society), pp. 42-65.

at the Foreland, 3 English ships, 5 of Flushing, Delft, and perhaps Middelburg; at Fairhaven, 3 of Amsterdam and one or two English. This leaves 5 Dutch and about 6 English unaccounted for. It is possible to believe that they may have gone to the eastward, about which region we hear nothing.

The ships of both nations that went to Fairhaven had no quarrels worth mention, for they were not near together, the Dutch being in the north harbour off Smeerenburg, the English in the south harbour. Their troubles were of another sort. A letter written on the 12th of July from James Beversham at Fairhaven to Wm. Heley at the Foreland tells all we care to know. "We are," he says, "and have been so pestered with Ice these 20 dayes that we have not beene able to goe out to Sea with our shallops above twice in the time, neither have we beene able to doe any good by reason of foule weather and fogs, nor have seene any more then one whale in all that time, which after shee was killed, turned us to much trouble, by reason of foule weather, and forced us at last to leave her in the Ice, where the Beares made a prey of her, who I feare will spoyle her before shee be recovered. We have killed sixteene whales besides, whereof the Flemish Biscainers stole one, for which they have promised satisfaction, but they are so shut up with Ice that they are not able to stirre either Ships or Shallops. All the Sea to the Northward of Hakluyt's headland, and both Eastward and Westward thereof is packt so full of Ice, that I feare it will overthrow our voyage, and put our ships in much hazard, the Lord release us of that miserie in due time."

Meanwhile at Bell Sound matters were not proceeding so peaceably. Edge was there in command of two or three ships and pinnaces, and we have his own account of what happened¹. He says that he came into Bell Sound on June 3rd and met there the whale-boat of an English interloper². Hearing that there were Dutch in Horn Sound, he sent John Ellis with his pinnace thither to bid them depart. He was on the point of going there himself when, about June 11th, there arrived at Bell Sound the

¹ *State Papers*. Affidavits of Edge, Sherwin, and others.

² N. Woodcock, of whom we have heard before.

Engel of Hoorn and a ship of Enkhuizen. He bade them go away but they would not, saying that they intended to fish by force if necessary and that they were "expecting dailie fower other Flemish shippes and a man-of-war to come hither." The man-of-war was in fact due, but the ships of the Amsterdam Chamber, always selfish in its dealings with the other Chambers, had taken her with them to Jan Mayen, where her protection was quite unnecessary. Edge replied that "he would in noe hande suffer them to put out a shallop. Then they intreated in regard they had been longe at sea that wee would permit them three or foure daies to take in a little wood and water, and then they would departe the country and not molest anie of the Companie, which the said Thomas Edge our generall gave them leave to doe. Under color of which fetchinge wood and water, they sent a shallop to Horne sound to the States man of warr and generall of the Flemings." The boat returned with news that the man-of-war had her hands full at Horn Sound and could not help them, but her pilot¹ came in the boat to see Edge. Under his orders the Dutch set out two whale-boats, which the English took and hauled up on shore. The pilot accordingly returned to Horn Sound without having accomplished anything, and we may imagine that the captain of the *Tunny-fish* did not become any more friendly to his English neighbours in consequence. It must have been at this time that the Dutch at Bell Sound built a big wooden hut, 80 feet long by 50 feet wide, roofed with planks, which the English presently captured, pulled down, and re-erected in a position more convenient for their own purposes. The Dutch then said that if their whale-boats were returned to them they would go away and "not stayer in any parte of the countrye. Upon which intreatie and faithful promise our generall gave them their shallops and soe aboute the 23rd of June 1618 they wente from Bel sounde and went presently to Horn Sound contrarie to their promise." Edge thereupon set to work killing whales and making oil, intending later to go to the Foreland and drive the Zeelanders away thence, but he put off too long,

¹ Muller, p. 397.

and before he was ready to sail he received news of the English misfortunes there, which we shall presently relate. All that Edge could then do was to interview the captain of the man-of-war, who pretended that he knew nothing of the matter, "seemed sorrowfull to heare such newes," made certain vague promises, and so departed. After the two Dutch ships had gone away Sherwin wrote a cock-a-whoop letter to Heley, saying, "Here came in two Flemmings, but wee handled them very honestly, but for fear of after-claps, or had it beene the latter part of the yeere, we would have handled them better. Now they be gone for Horne-sound. I would that they had all of them as good a paire of hornes growing on their heads as is in this Country." Sherwin had heard of the bad time Heley was having with the Dutch, but was expecting to join him soon, when he promised to "comfort you with a good couple of Hennes and a bottle of Canary wine, but I pray bee carefull of your selfe and keepe you warme, and take heede the Nodis doe not pick out your eyes." Meanwhile they at Bell Sound "dranke to you and wish you many a Venison pasty. We have so little to doe wee feare we shall all have the scurvy, but we have pulled downe the Flemmish house and brought it neere, more fit for our turne."

The Hoorn and Enkhuizen ships when they left Bell Sound had no idea of sailing home, whatever they may have promised. On the contrary they went straight to Horn Sound to take counsel with the man-of-war's captain and Abraham Dirksz. Leverstein, the general of the whalers. The five ships at Horn Sound were all from Rotterdam or Delftshaven. They had already given the two English ships there a lot of trouble¹. At the beginning of the season the English protested against the presence of the Dutch, who replied, "Hither we are come to this porte and in this place will make our voidadge," but declared their intention of not interfering with the English. After a long discussion "the Flemings bad them holde their peace, and saide their shallops they must and would set out and make a voidadge there, and would place up their coppers by the

¹ Affidavit of Johnson, Dridle, and Henderson (*State Papers*).

English." They further claimed that "the harbour was theirs, beeinge given to the Hollanders in the yeare 1614 by Captaine Josep." A claim to use Bell Sound was also advanced on the same grounds. Finally the captain of the *Tunny-fish* put an end to the palaver, saying, "My good friends, hould your peace! For hither I am come with commission from the States to see unto theis men that they neither doe anie wronge nor take wrongs. And so longe as they staie I will staye, and when they set saile I will set saile. For I come not to fish nor to lade any goodes but to see unto them." To this of course the whalers had no reply. "The *Tunny-fish* did keepe a greate boat alwayes out readie man'd with twentie small shot and pikes to resist and hinder the English from followeing their busines, and to guard the Flemish shallops." It was claimed that the sailors perpetrated many petty thefts. When protest was made, the captain of the *Tunny-fish* "in scoffeinge manner shrunck up his shoulders at it; and afterwards caused divers men with musketts, swordes, and pikes to enter the English tent, when the men were at rest, to searche for one of their coopers who had upon some occasion kil'd a Fleming"—a fairly reasonable proceeding, one would think. And another time it was claimed that they came in force at night (in June!) with about 60 armed men "into the Englishman's tent and carried two Englishmen, aboorde the Flemish shipp and put them into the Bilboes and kepte them there for five or six daies."

Such was the strained state of affairs about June 11th when the Enkhuizen and Hoorn ships came in, with news that they had been driven away from Bell Sound. Thereupon followed more discussions, the English vehemently protesting against such a number of ships fishing in one harbour. It appears that it was now decided by the Dutch to take active steps to revenge themselves on the English. They had three distinct grievances—the damages suffered in 1613 and 1617, for which no compensation was obtainable, and the outrage, as they considered it, upon the Enkhuizen and Hoorn ships this year. Heley, who at that moment was practically alone at the Foreland, was the man specially detested for his behaviour last year. Accordingly they decided to go to the Foreland, capture

Heley's ship and take everything from him as compensation for the injuries they had received. About the beginning of July, Leverstein in the *Cat* sailed away accompanied by the two ships of Enkhuizen and Hoorn, and one other, and escorted by the man-of-war for a short distance. We shall presently see what they accomplished.

When news came of the events at the Foreland, yet to be related, one of the English ships at Horn Sound sailed away home, and the other joined Edge. After their departure the Dutch "burned the Englishes houses, split their shalloppes, and heaved their caske into the sea." For losses at Horn Sound the Muscovy Company afterwards claimed £4,480 for 40 tons of whalebone stolen, and £494. 5s. 0d. for "318 ton of caske, 170 bundles of hoopcs, 8 shalloppes and two boates, a house worth 15*l*. with deale boardcs and other provisions to the value of 30*l*. . . all which was sett on fire by the Flemings at their coming forth of the country¹."

To complete the long story of this year's quarrels we have now to narrate what happened at Sir Thomas Smith's Bay near the Foreland. Whatever rights the Dutch may have had, or conceived themselves to have, on the Spitsbergen coasts in general, it is certain that they had no rights in the Foreland harbours. Those had been in the sole and exclusive occupation of the English for eight consecutive seasons, and, as Heley pointed out, were even marked on the Dutch charts themselves as the English harbour. It was an openly aggressive act, therefore, when five Dutch ships anchored in Sir Thomas Smith's Bay early in June, the English ships *Pleasure* (with captains Salmon and Heley on board), *Elizabeth*, and *Prudence*² (a pinnace), being already in possession. It was intended to be so. The Dutch knew, so they stated, what the distribution of the English was to be. They knew that Heley was to go to the Foreland. It was for that reason that three of the five ships that settled beside him were commanded by the

¹ *State Papers, Domestic*, James I (1617-19), Vol. XLI. No. 83, also Vol. XCIX. No. 37.

² The *Prudence* was still chartered by the Muscovy Company for the Spitsbergen voyage as late as 1629, as appears from a letter of her master to Mr Wyche. She served for five months, and received £90 a month (*Calendar State Papers, Domestic*, Add. 1625-49, p. 731).

three Zeeland captains Huybrecht Cornelisz, Cornelis De Cock, and Adriaen Peterson, with whom he had interfered in Horn Sound in 1617. There can be little doubt, I think, that they came up with a definite plan, which was to let Heley's ships do a season's work, and then with the help of other Dutch ships brought together from other harbours to fall upon him, take his stuff away, and carry it home to Holland as compensation for last year's losses. The following account of what happened is based upon the affidavit of Heley, Salmon, and others¹, corrected by contemporary Dutch relations.

From the beginning of the season there was trouble between the rival whalers. Heley in the *Pleasure*, and his two consorts the *Elizabeth* and the *Prudence*, "ships of noe defence haveing no ordnance in them," came into harbour on June 1st and met there the interloper *Sea Horse*, Nicholas Woodcock master, "who had been there off and on upon the coast above twenty days before and who departed from there the seaventh of June....The English presently, upon their arrivall wente in hande to fitt their provisions and man'd out all the shallops they could to sea, cleareinge their shippes, (and) reman'd not expecting the comeinge of anye Flemings thither. And in foure or five daies after their arrivall had killed eight or nine whales being in good forwardness to make a speedie voiadge."

At this time the ice incommoded them as it did the ships at Fairhaven. "Since our comming into the Bay," writes Salmon², "we have beene much troubled with Ice and Northerly windes, so as we have not been two dayes free of Ice. We had a storme Northerly which brought in much ice, so as we were inclosed withall eight dayes: there went such a Sea in the Ice that did beate our ships very much for foure and twentie houres, that I did thinke we should have spoyled our ships: but I thanke God we cannot perceive any hurt at all it hath done to us; also we have broken two anchors with the Ice; we have killed 13 whales, but they yeeld but little, in regard of the Ice which hath much hindred us in our worke, for in ten dayes we could not doe any worke the Bay was so full of Ice:

¹ *State Papers, Domestic*, James I, Vol. 99 (Sept., 1618), No. 40.

² To Sherwin, June 24 (July 4), Purchas III. 733.

the Bay was full as low as Fox-nose, and now at this present the Bay is full of shattered Ice, the windes hanging Northerly keepes it in."

On June 19 (9) the three Zeeland ships came in, being the *Fortune* of 400 tons "with eighteene cast pieces besides brasse bases and murtherers, the *St Peter* (300 tons, 18 guns), and the *Salamander* (200 tons, 14 guns), who came to anchor close by the English shippes and presently fitted their shallops out to sea, haveinge great store of Biskeners, and set foure or five shallops from each shipp and landed their caske and other provisions. Which the English seeinge, the saide William Heley, sent for the Captaine of the Admirall of the Flemings, willing him to rowe aboorde, who retourned answer he had other busines to do. Then the saide William Heley went ashore and toulde those Flemings that were ashore they must not remaine there, willing them to wish their Captaine come a shoare. They answered thither they were come and there they must stay and would place their coppers close by the English, saieinge, 'Where is your Dragon¹ nowe? You thinke to doe as you did the last yeare, but we are fitted for you nowe, and wilbe even with you for the last yeares work.'" Presently Cornelis De Cock and Adriaen Peterson came ashore and Heley talked with them, saying amongst other things, "There was not any Dutch or Flemish ship in this harbour before. It is called 'the English Bay' by the Flemings themselves, and so set down in their plats or sea-charts²." His protests, however, were addressed to deaf ears. The Dutch say that when they landed their coppers and were for building a hut the English interfered and prevented them³, which, considering the overwhelming force of the Zeelanders, is unlikely.

It was not till June 21 (11) that Heley met Huybrecht Cornelisz on shore. It is stated that he was drunk at the time. At all events he behaved in an excited manner, laid hand on one of the English coppers and called his men to come and pluck it up and carry it away; and he called

¹ Heley's armed ship of the previous year.

² I have not yet been able to find any Dutch whalers' charts of Spitsbergen of so early a date as 1618. The earliest I know is that engraved by A. Goos in 1620.

³ *Mémoire* in Muller, *Mare Clausum*, p. 372.

Heley a "Skellam¹ Rogue; and with a knife ready drawne in his pocket stab'd at him; and had there kil'd him if Michael Greene had not held him by force, and diverse English come thither presently. And then he bid the English 'fish, fish,' and he and his associates would take away all their oyle and would sinke them presently, and so in greate rage departed." Next day there was some kind of apology made by Huybrecht, who asked Heley to give him an old boat, which he agreed to do, and so for the nonce the quarrel was patched up.

At this time two Middelburg ships came in and anchored with the others, "the one haveinge fourteene caste pieces, and the other twelve, beeinge shippes of greate burthen, who likewise placed up Coppers, man'd out shallops, and so over preste the English with a greate number of boates, seekinge all the meanes they could to overthrowe the voiage of the English. Yet through God's blessinge and their painefull labors they kill'd more whales then all the Flemings and were like to make a greate voiage there if they could have beene in quiet."

The next quarrel was about a whale, said to have been killed by the Biscayers in English employ but appropriated by Huybrecht. Heley spoke to him about it. In reply he "saide if shee belonged to the English he would restore her, and saide he was very sorrie for the former wronge he offred and woulde not have donn so much for one hundred poundes if he had not beene animated thereunto by his men. Saying, he was in drincke, and desired it mighte be forgotten and to be friends, proffringe greate kindnes to the English, but kepte the whale."

It is probable enough that the Zeelanders did not love Heley, but they seem to have been friendly with other English officers. Thus Salmon wrote, "Here is five sayle of Flemminges, which have fourteene and sixteene pieces of Ordnance in a ship; and they doe man out 18 shallops; so that with theirs and ours here is 30 shallops in the Bay, too many for us to make a voyage: there is at least 1500 tunnes of shipping of the Flemmings; we have reasonable

¹ Dutch *Schelm* = rogue.

"She tauld thee weel thou wast a skellum,

A blethering, blustering, drunken blellum." (Burns, *Tam O'Shanter*.)

good quarter with them, for we are merry aboard of them, and they of us; they have good store of sacks (? sack), and are very kinde to us, proffering us anything that we want. I am very doubtfull of making a voyage this yeere, yet I hope Crosserod¹ will helpe us for one ship, the Company must take another course the next yeere: if they meane to make any benefit of this Country, they must send better ships that must beat these knaves out of this Country, but as farre as I can understand by them, they mean to make a trade of continuance of it:...we will let them rest this yeere, and let who will take care the next yeere, for I hope not to trouble them."

On one occasion when Heley and Smith were on board De Cock's ship, De Cock "said that our king of England was a Scotchman." At this point the official of the Court of Admiralty adds in the margin, "A gross and intolerable abuse to his Majesty!" He further said that King James' picture "stood at Flushing with an emptie purse by his side. Which words the saidd English not brookeninge the said Cock to stopp their mouthes would presently fall down on his knee and drinke half a glasse of wine to the Kinges Majestie's healthe, and sit and drinke half a glasse of wine to the Prince of Orrange his healthe."

It is clear that thus far Heley was in no fear of being overpowered, for it was not till July 4 (June 24) that he sent a boat with letters to Edge and Sherwin at Bell Sound asking for help. If Edge had come at once the upshot would have been different, but he sent a letter, which arrived on July 12 (2), telling Heley to inform the Dutch, that if they did not depart he would presently come and turn them out. To this message they replied, "We don't care. Let him come and do his worst. We will stay and fish. Our force is greater than yours." It seems clear, however, from the statements of the Dutch themselves that the prospect of Edge's coming precipitated matters. At this time Heley sent the *Elizabeth* away to a harbour at a distance of 8 leagues, "whither" the Dutch "sent shallops likewise, where she had beene full laden with an overplus, if they would have suffered her there in quiet and whither

¹ The small ship *Prudence* was there.

they sent to take her and so forced her to departe out of the countrie."

The four Dutch ships, which we have seen departing from Horn Sound came into the Foreland harbour on July 26 (16). It will be remembered that two of them were the ships that Edge had driven away from Bell Sound. They anchored close by Heley's ship the *Pleasure*, which was now quite alone, the *Prudence* being in Cross Road. "The Admirall of which foure Flemmings (the *Cat*) caused a pointe of warr to be sounded as he came by the English Viceadmirall, and let fall his anchor in her quarter, close by her; and one of the other shippes harde by in the bowe of her." Abraham Dircksz. Leverstein, captain of the *Cat*, seems thenceforward to have taken the lead among the Dutch. Heley says that Leverstein was a man of "bad carriage and mean condicion," very inferior to the other captains who put him forward for that reason, wishing thus to escape responsibility for a nasty business. He adds that he was "a simple fellowe and one that had beene saile-maker but two yeares before, and one so addicted to drinke that the Captaine of the man of warr saide he had seene him druncke twentie daies together." All this was probably mere scandal, for Leverstein was the son of one of the chief Dutch adventurers¹. The Dutch, on the other hand, called Heley "*een Jonck ende outrequidant persoon sich zeer violentelyck comporterende*," a description that he would not have accepted any more than Leverstein Heley's.

On July 27 (17) the Dutch held a council, "where they drew orders for surprisinge and takeinge the English," but the Enkhuizen captain refused to join them, saying "he came not to robb men but to fish for a voiage," and so "weyed anchor and wente out of the harbor." The meeting of the Dutch captains then sent for Heley, who, after many refusals, declarations that they would have to come and fetch him by force, and the like, ultimately went to them in company with Salmon and Wilkinson. He was thereupon informed that the Dutch intended "to take all the oile and goodes the English had there, and if he would yeelde, then they would be table brothers and friends; if

¹ Muller, *N. Co.* p. 391 note.

not they would presently haule aboorde and sinke him.... Presently Hubrichte, usinge his former language of Skellam Rogue, made shew and proffered two or three times to goe out of the cabben and to sinke our shipp whilst we were in conference together." High words followed. The Dutch told "us that the countrie was theirs, askinge us how we durste doe as we had doone formerly in *their* countrie ; and though the Hollanders had lefte it, they would not loose it. Now we should not put them by it, they beeinge the first discoverers thereof. And if we came againe and fish there anie more it should bee in some such harbors as they would allot us after they had made a devisiion of the countrie....

"Before we went of from their shipp side, they had laid out two warps, one from the generall and the other from Cock, and so heaved aboorde of us ; and there offred, with weapons drawne to enter our ship, shee beeinge all open and unpriddy, and very few men aboorde of her, rideinge with yardes and top-masts downe. Yet not likeinge so well to enter they fell from the side again and continued their warps fast till the 18th day at nighte. And then beeinge much winde, we sent for some of our sea-men that were neere hande to come aboorde, who presently hauled up their boates and came by lande, a very bad journey."

"The 19th daye of Julie in the morneinge, beeinge Sondag, wee got up our top-masts and fitted our shipp soe well as we could to defend ourselves. It beeinge then faire weather and little winde they put abroad their wast cloathes, bloodie colors, and discharged diverse small shott, layed out warps to heave cleere one of another and brought five broad sides," those of the *Fortune*, *St Peter*, *Salamander*, *Cat*, and *Engel*, "to beare on us, of greate force, hemminge us in and overlayeinge our kedger to keepe us we should not weye." Thereupon a further summons to yield was sent, and more discussion followed. Finally, "Master Salmon went aboarde the Generall, thinkinge to have founde him in a better minde, but contrarily he founde him readie to begin, saieinge his glasse was turned one out and the other halfe run, and if we did not yeelde before that was out he would begyn ; and if we shott a shot againe, he would pilladge and use us cruelly.

And one aboarde of him (beeinge either the Master of the shipp or rather the States man of wars pilott) saide, ' Let us begin, and not loose any more time.' "

" Then, as soone as Mr. Salmon came aboorde, the generall began to let flie, and the rest seconded him, so fast as they could ply their ordnance, musketts, and murtherers ; and shott divers at our Flagg, and through our shipp's hull, and killed us a man in the fore top, looseinge our fore topsaile before we shot at them againe, for that our men were most busie in seekeinge to set saile that we might the better have dealte with them. And if God had not shewed his greate mercie towards us, they had then spoiled most of our men¹, and blowne up our shipp. And so they continued, still shooteinge and killinge and spoileinge our men. And haveinge no sooner plide our broad side on them, and got our shipp under saile through them, and makeinge our ordnance readye againe, but they shot our sailes downe (and) cut all their cables, followeinge and forceinge us either to rune a shoare or come to an anchor, bideinge us stop our leaks to keepe us from sinkeinge. We then, beeinge unable to make resistance againste so manie, they came aboarde of us, armed, and disarmed our ship of all her ordnance, powder, and munition, comandeinge our men to goe ashoare, pilladgeinge everye thinge they could laie hands on, drinkeinge out our beere, carrieinge away our victualls, and doeing what pleased themselves. Which the saide William Heley beeinge much agrieved at, tould the Generall, although he had taken the shipp, he hoped he would not suffer his men to carrie away poore mens cloathes and our victualls, and drinke out our beere, haveinge little enough to carrie them home. And bid the Generall if he would have them drinke, to send beere from his owne shipp, for he would not allow them anie there. The Generall replied, ' How dare you denie my men beere or speake to me ? I will presently send and fetch your beere out of your shipp,' and proffered to breake up our bread rome (room), and many other violences too intollerable."

" Further...the saide Generall and the other commanders of the Fleminges beeinge in the *Pleasure* cabin, and seeinge

¹ Edge says there were only seven on board, but perhaps he refers to July 17th.

the picture of Sir Thomas Smithe, Knight, there, demanded whose image it was. The said William Heley toulde them it was the picture of the worthie Governor of their companie of merchants in England, and one he hoped would seeke meanes to have our wronges redressed and sufficient satisfaction for the injuries sustained. 'Oh'! saide they, 'that Sir Thomas Smith is a greate man. He hath money enough to lend the Kinge. He can do what he will with speakinge. What care we for him?' So haveinge taken away all our oile, fyns, ordnance, powder, and diverse other things, as per the particulers appeareth, overthrowinge our whole voiage and takeinge the other shipp *Prudence* there in companie with us, they bid us goe kill more whales for ourselves if wee would.

"And after our shipp was taken, worde beeinge brought to the Generall that some of the English men were kil'd, he said it was no matter and they were all kil'd; sayinge they had time enough to yelde, and that he shott five or sixe shott at their flagg before he shot the shipp's hull....For a farewell, as one of our shallops was goeing ashore to fill some freshe water, they shot a greate shot throwe her to spoile the men in her." They finally departed and left the English on Aug. 3 (July 24). It was thus Heley's turn this year to sail home ballasted with stones.

What the damage actually done by the Dutch amounted to is difficult to arrive at. They say they took 470 quartels of oil, a small quantity of dirty whalebone, and the armament of the *Pleasure*. The English claim for damages was as follows¹:

Taken from the Shipp <i>Pleasure</i> .		£	s.	d.
100 tons of oil at £15	. . . . .	1500	0	0
7 coils of rope at £4	. . . . .	28	0	0
20 New Lances at 5/-	. . . . .	5	0	0
1 Fowling Peece	. . . . .	1	10	0
Beer, Steward's stores, and other Provisions	. . . . .	20	0	0
		<hr/>		
		1554	10	0
From the Shipp <i>Prudence</i> .				
30 tons of oil at £15	. . . . .	450	0	0
1 ton of beer	. . . . .	3	0	0
		<hr/>		
		453	0	0

¹ *State Papers, Domestic*, James I, Vol. 41, No. 83, and Vol. 99, No. 37.

	£	s.	d.
From the shore in Sir T. Smith's Bay.			
33 tons of oil at £15	495	0	0
Blubber which would have made at least 40 tons of oil at £15	600	0	0
Fynnes (whalebone) of 130 whales, being the gathering of the fynnes in that harbor 3 yeeres before at a ton for each whale, 130 tonnes at 12 <i>d.</i> per lb. (£112 per ton).	14560	0	0
	15555	0	0

These sums added to the £4,974. 5*s.* 0*d.* claimed for damages at Horn Sound made a total of £22,536. 15*s.* 0*d.* ; but the Muscovy Company's clerks made a mistake in their addition and the sum claimed was £100 more.

They further claimed £43,800 on the following grounds, though this part of their claim was not seriously pressed and was dismissed by King James. "In primis the Company provided the last yeere 2,600 tonnes of caske, together with the like quantity of shipping, for the bringing home of much oyle and fynnes, but the disturbance of the Flemings was such in all the harbours as that there is not brought into England above 600 tonnes of oyle, so that the Company is damnified by their disturbance, through inforcing them out of their harbours in the cheese time of the yeere to the cost at least of 1,800 tonnes of oyle at 15*l.* per ton is 27,000*l.* and 150 tonnes of fynnes at 12*d.* per lb. 16,800*l.* in all is £43,800.

Some totall is £66,436. 15*s.* 0*d.*

Besides the wounding and killing of one man, with the spoyle of their shipping and their furniture to the great damage of the owners, which they are ready to make knowne, viz. as Ordinance, powder, musketts, lances, etc. to the vallue of " (unstated).

The Dutch were probably right in contending that this claim was exaggerated.

The Dutch divided the plunder *pro rata* among the five ships which had taken part in the exploit and carried it safely home, where it was handed over to the Dutch Admiralty and officially partitioned between the four Chambers that sent out those ships.

Some of the Dutch whalers hung about the Spitsbergen coast after the main body of the fleet had sailed. Wilkinson in the *Prudence*, as soon as he was set free, went to work

killing whales again and boiling down oil, so he cannot have been deprived of his equipment. On his way home he was stopped by three Dutch ships, who called him on board and kept him for 16 hours "and sent men aboorde to ransacke and searche his shipp, threateninge to carrie him into harbor againe and take all he had then in him, and useinge him very unkindlie."

The worst individual sufferer was Robert Salmon, for he was the owner of the *Pleasure* and depended largely on her for his livelihood. He said in his complaint that the Dutch did "take away all herr ordnance, powder, shott, musketts, piks, cables, sailes, and all other provisions whatsoever, and did so batter and spoile her with ther ordnance, together with the takling and Apparrell that shee was in greate danger of sinkeinge...to the utter undooing of your poore petitioner his wife and children." In the end he got back his ordnance and 3,600 florins to be divided between him and an unnamed Scotsman. Salmon and other English whalers believed that Sir Thomas Smith Bay was thenceforward unlucky. Thus in 1621 Salmon wrote, "I doe verily persuaide my selfe that God is much displeased for the blood which was lost in this place, and I feare a perpetuall curse still to remaine yet." Catcher, in 1633, wrote that "manie say still it is impossible to make a voyage" in the same bay "by reason that the Flemings shed blood there¹."

The general result of the season was not good either for Dutch or English, cargoes being small, but the Dutch comforted themselves by relating the tale of their exploits. We may be sure they lost nothing in the telling. Carleton, the English envoy to the Hague, relates², "Nous auons en ces iours passez la nouvelle chantée icy à la Haye, a bouche ouverte et visage assuré, dans la Court, et par les rues, avec les particularitez tant des pieces d'artillerie, et des tonneaux d'huyle prises et divisées en mer, comme des hommes tuez et blessez, et le tout receu avec grand applaudissement et triumphe, comme d'une victoire gagnée sur les ennemis. Eo audaciae perventum est." In England loud complaints were raised against the Dutch, not only for

¹ Purchas III. 735, 737.

² Muller, *N. Co.* p. 218.

their doings in Spitsbergen, but for the injuries inflicted by them on English traders in the East Indies. King James took the matter in hand. Protests were lodged at the Hague. Glad though the Dutch no doubt were, to have humbled the Muscovy Company's pride, they did not want a serious quarrel with England. Commissioners were accordingly sent at once to London "to settle the East Indian and Greenland disputes¹," and the old diplomatic wrangle began again.

The Dutch representatives were instructed to work for a regulation of the Spitsbergen fishery and a division of the bays. It was March before the question came to a hearing, and July before the King pronounced his decision. This was done with some ceremony on July 15th in the hall of the Merchant Tailors' Company, by Lord Digby and other commissioners appointed for that purpose. The upshot of it was that King James adhered to his claim of sovereignty over Spitsbergen, but would not enforce it for three years, during which interval both English and Dutch were to have access to the fishery. The Dutch were to return the stolen goods within 3 months or their value £22,000, and to pay damages within 3 years, and then the Muscovy Company was likewise to make restitution, "forasmuch as the goods taken heretofore by the English from the Dutch...were taken by His Majesty's Warrant and authoritie," whilst those "taken by the Dutch from the English Anno 1618...were taken by way of depredacon and without any warrant from their superiors²."

Neither within three months nor within three years was restitution made or damages paid, for there was really no force to compel such payment. The fault was throughout the English Government's. If it meant to annex Spitsbergen it ought to have sent men-of-war to protect its whalers, as the Dutch did. The real fact was that the English Navy was in a bad way. Here is a report of the condition of the Navy in this very year 1618.

"The King's navy in charge upon the books of ordinarie payments containeth ships and names of ships (sic) in al of al sorts—43; whereof 29 are esteemed serviceable,"

¹ *Calendar of State Papers, Domestic*, Add. 1611-18, p. 576.

² *State Papers, Domestic*, James I, Vol. 109 (May-July, 1619), Nos. 122, 135.

though some need repairs; "the other 14 are al decayed and unserviceable to bee put out of charge and new built in their roome. The serviceable are

4 Ships royal—

	Tons.	Men at Sea.
Prince royal	1200	500
Beare	900	500
Merhoneur	800	400
Anne-Royal	800	400

9 great ships from 700 to 800 tons.

4 midling ships from 400 to 250 tons.

3 small ships from 200 to 150 tons.

6 pinnaces from 100 to 20 tons.

Total 11,410 tons, 5,155 men at sea in the effective ships. So it appeareth that the Navie is now weaker then it was the last of Q. Eliz. by 6 good ships, a lighter, and a ketch, and in tonnage 3,250 tonnes, beside the decay of the gallies."

CHAPTER XI.

PROGRESS OF THE WHALING INDUSTRY AT SPITSBERGEN.

THE reported language of King James' decision does not tell us under what terms Dutch and English were to fish together in Spitsbergen during the three neutral years. Before that decision had been pronounced, however, the whalers of both nations were at work. One of the Dutch propositions for a settlement had been that Spitsbergen should be divided at Cape Cold on Prince Charles' Foreland, and that all north of that should belong to one country; all south to the other¹. What actually happened was that the Dutch in 1619 and thenceforward confined themselves to the north-west corner and north coast, and that the English kept all the other west coast bays. About the fishery round Edge Island we hear nothing.

Thus in 1619 eleven Dutch and Danish ships occupied Mauritius or Dutch Bay and its neighbourhood². The Danes sent up two ships furnished with a passport from the King; "*Ausquels navires alors pour certain regard fust permis et admis (toutes fois sans prejudice) de faire la Pesche des Baleines, avec ceux de ces Paijs avecq deux navires et pas d'avantage*³." We may conclude that more sheds were erected at Smeerenburg (just opposite to where poor Andrée set up his balloon-house), and that Blubber-town began to take shape, the Dutch occupying the east half of the shore, the Danes the west half. The English

¹ Middlehoven's map of 1634 shows this division, and may be a copy of a map sent over with the Commissioners in 1618.

² This year three Dutch men-of-war convoyed the whaling fleet. In 1620 only one, afterwards none for four years. Muller, p. 100.

³ Memorial quoted by Muller, *N. Co.* p. 407.



Ice-cliff at the end of a glacier in Recherche Bay, from a photograph by Mr C. T. Dent.

fleet under Edge consisted of nine ships and two pinnaces. They occupied Fairhaven or the English harbour (five ships), Sir Thomas Smith Bay, Bell Sound, and Horn Sound. They took up a Russian house to erect at Sir Thomas Smith Bay, where Heley was again in charge. The season was destined to be an unlucky one. The concentration of so many ships in the north-west began to frighten the whales and "put them by their usual course." We shall presently see that within 20 years the whales entirely forsook the north-west angle of Spitsbergen for this reason. The five English ships at Fairhaven did badly. There were few whales at the Foreland. Heley had some trouble there with the Russian house, and received instructions "that, if you cannot set it up, that then you should make an English house of it, and to place the post of a deales length, and to be three deales in length, and so much in breadth, and so to cover it with deales the next yeare, and so he (Edge) thinketh that it will make two frames: also hee could wish that you would remove the Coppers more up into the Bay"; all which is somewhat obscure.

At Bell Sound a dreadful accident occurred to one of the ships (Mr Bush's ship), aground off the end of a glacier. The following is John Chambers' description of the event in a letter written to Heley on June 16th:

"I am forc't to write in teares unto you for the losse of our men, by the most uncouth accident that ever befell unto poore men. The 13th of June last we were put ashore in the Ice Bay, our Shallops being not aboard: but as soone as wee heard of it, we made what haste we could, and haled our shallops upon the Ice, and went aboard our ship. By that time we had beene there an houre, making what meanes we could to get her out, a maine peece of the Cliffe falling, the fearefullest sight that ever I beheld beeing then aboard, expecting nothing else but death, with all the rest that were in her: But God of his great mercie and Providence delivered us, that were not then appointed to dye, that were past all hope of life; for the Ice fell so high and so much, that it carried away our fore-Mast, broke our maine-Mast, sprong our Bouldstrit, and fetcht such a careene that she heaved a piece of Ordnance over-boord from under our halfe Decke, hove me over-boord amongst

the Ice in all the sea, and yet I thanke the Lord I was never hurt with a piece of Ice, although it pleased God they were spoyled (wounded) and killed close by me..... The men that are killed are these, my Mate Money, Nicholas Greene, and Allin the butcher. There be many more hurt, which I hope will recover it, by the helpe of God and the meanes of a good surgeon."

After this accident things did not go well, for they were pestered with ice, apparently in every harbour down the coast. Northerly winds kept the harbour in Bell Sound, which they call Ice Bay (the modern Recherche Bay), full of ice. Easterly winds filled Horn Sound. The South Cape was so infested with ice that an attempt to get eastward failed. "This Ice," we read, "hath put in young Duke (Marmaduke) of Hull into Horne sound, his ship being much torne with the Ice.....His voyage is utterly overthrowne, for he hath lost one shallop with sixe men, and another shallop broken with the Ice, his Ruther (rudder) irons being all broken, his Steeme broke away close to the Woodings." This reference to Marmaduke further confirms the suggestion already made that the Hull men at this time were wont to frequent the eastern region, and that is why they seldom came in contact with the Muscovy Company's men. A ship of Flushing was likewise "beaten very sore" by the ice and thought likely to be wrecked. Nor was this the end of the year's accidents, for a boat sent with letters between Edge and Heley was likewise cast away and all the men lost¹.

These serious troubles probably gave their sufferers something to think of besides their old score against the Dutch. Yet that was not forgotten; for Salmon (the chief sufferer in 1618) on the 15th of July wrote to Heley, "I understand by Master Catcher's letter that there is eleaven saile of Flemmings and Danes" at Mauritius Bay. "I doubt not but we shall call them to account of how many tunnes of Oyle they have made, as they did call us the last Voyage to account. My love is such unto them that I protest I

¹ So says Edge in Purchas III. 469; but it is difficult to understand, for the boat sent by Heley to Edge arrived safely at Bell Sound on July 5th, and we possess a letter sent back by the same boat to Heley, which must therefore likewise have arrived safely.

could wish with all my heart that we might goe and see them, and to spend my best blood in the righting of our former wrongs. Also I understood by Robert Foxe that Adrian of Flushing is one of them. I should be very glad to see him that I might balance the account with him."

To complete the catalogue of the Muscovy Company's misfortunes in 1619, one of their ships was lost near Yarmouth on her way home. To make matters worse the Dutch succeeded in smuggling their oil into England and actually underselling the Company in its own market! The Company in disgust put up their whaling rights and plant for sale. They were bought in by four of the brethren, Ralph Freeman, Benjamin Decrow, George Strowd, and Thomas Edge. Henceforward Edge seems to have gone no more on active service but to have acted as manager at home.

The whaling fleet sent out in 1620 by the new partnership under the command of William Goodlad or Goodlard and Heley consisted of seven ships. This is the first time we hear of Goodlad. His name will be of frequent occurrence in succeeding years. Edge briefly states that the English ships, "by reason of great store of Flemings and Danes in the Northernmost Harbours, had ill successe to the northwards and were forced to passe from Harbour to Harbour to make a Voyage, but could not, and so returned home halfe laden with 700 tuns of oyle." As the value of this cargo, the corresponding amount of whalebone being added, was over £17,000¹, it is probable that the season's work was not unprofitable.

A letter written from Catcher² at Fairhaven to Heley enables us to deduce some not unimportant facts. The Dutch had only two great ships, protected by a man-of-war off Smeerenburg. Yet they manned out 18 whale-boats. It may reasonably be concluded that most of these boats and their equipment were permanently kept at Smeerenburg, seeing that three whale-boats to a ship was the usual allowance then. The two ships must have brought up double crews, as was their later habit during the great days of Smeerenburg. The Danes, this year, did not occupy

¹ Reckoning oil at £15 per ton and whalebone at £112 per ton.

² Purchas III. 735.

Mauritius Bay in company with the Dutch, but were with the English in Fairhaven. When Catcher wrote there were two Danish ships arrived and two more expected. These ships doubtless belonged to a Copenhagen whaling company just founded. One Braem was at the head of it. The English in 1619 had agreed to let the Danes fish with them as some concession to the King of Denmark's claim to sovereignty over Spitsbergen. They made it a condition, however, "that this liberty must not be transferred to any other nation by them¹." It appears that the Danes did not abandon their rights to their huts on the Smeerenburg flat.

In the following year, 1621, the four English adventurers again sent seven ships besides one to the south-east for discovery, about whose doings we know nothing. They made 1,100 tons of oil, which must have given them a good profit, though it was stated that the Flemings and Danes "upset their voyage" at Fairhaven. The whales came in well at the Foreland, and six were killed, but then no more were seen for a long time. "We have not seen a whale this 14 days," writes Salmon², "and faire weather is as scarce as the whales; for ten daies together nothing but blow, sometimes southerly and sometimes northerly." Heley, for the first time, was not at the Foreland, but at Bell Sound, which now became and henceforward remained the English head-quarters. English and Dutch had now finally settled down at the sites they were to occupy as long as the fishery lasted.

This year there was founded the French "*Royale et Generale Compagnie du Commerce pour les voyages de long cours ès Indes occidentales, la pesche du corail en Barberie, et celle des baleines.*" Whether it sent whalers to Spitsbergen we cannot say. Nothing is heard of them. This company likewise traded with the north of Russia.

The same English fleet, with the same enigmatic ship for discovery, went up in 1622. By this time East Spitsbergen must surely have been well known, yet we never hear of the ships of either the Dutch or English companies going to fish there. Modern explorers have found traces

¹ *State Papers, Domestic*, James I, Vol. 105 (Jan.—Feb. 1619), No. 13.

² Purchas III. 735.

of many cookeries on the south coast of Edge Island and the adjacent islands, but we shall probably never know to whom they belonged, or what adventures and tragedies happened there. It may be regarded as certain that the Hull men systematically frequented that region. A large bay in the west side of Edge Island is called Disco Bay, a name also associated with the Dutch whaling industry in Greenland. What Disco means I have been unable to learn¹. Zorgdrager alone preserved any information about this fishery. He says:

"At this time of the Greenland company² there was an important fishery below the south ice, east of Spitsbergen and in the Disco. It was at that time sometimes pursued as far as Novaja Zemlja with very good results; but then there were more whales by Spitsbergen than by Zemlja. This I have been told, not only by several old captains and harpooners but also by my pilot Tennis Battsiz, who was with me in the year 1693, then an old man. His father, William Ys, had served the (Noordsche) Company as commander. This man told me with much detail how the Company's ships, shortly before and also during his time, used to ride at anchor at Disco and below Half-moon Island, and sent out their whale-boats provisioned with all things necessary for several days to fish east of Spitsbergen, along a great iceberg (King John's glacier of our chart), and thus, though with much toil with sailing and rowing, towed many fish to the ships that lay in the bays. They were afraid at that time to go with their ships among the ice, so that the ice-fishery was then altogether unknown. If the ice came driven along by a north-east wind, they raised anchor and fled before it with the ships out to sea. But when some of the bravest sailors, remaining behind the rest, let the small ice drive by them, the whales came with it to them into the bays and many were killed near the ships³." It was thus perhaps that they were ultimately led to build stronger ships and venture with them into the ice, whereby the

¹ It appears for the first time on Doncker's map of 1663, where it is written Dusko. It occupies the position of the older "Duckes Coue" (Duke's Cove). Duke was Marmaduke, the Hull whaling skipper, whose habit it was to fish somewhere to the eastward.

² By this he means the Noordsche Company, 1614-1641.

³ Zorgdrager, German edn. pp. 172, 173.

whole method of the whale-fishery was revolutionized. That change, however, was not made till long after the year 1622, with which we are now concerned.

The season opened calamitously for the English. "One of their greatest ships of burthen, whereof John Masson was master, having in her 200 tons of Caske, Coppers, and divers provisions, was unfortunately cast away against a piece of Ice, upon the coast of King James Newland, foure leagues from the shoare, in which ship perished 9 and 20 men, and the remainder being 3 and 20 were by the providence of the Almighty miraculously saved in a Shallop, coasting 30 leagues afterwards to meet with some other ships to find some succour, having neither bread nor drinke, nor any meanes whereby to get any food: and so remayned 3 dayes in extreme cold weather, being in a small Boat ready to bee swallowed up of every wave, but that God provided better for them. Many of which people their hands and feet rotted off, being frozen, and they died in the Countrey. The rest of the ships returned home laden, bringing in them 1300 tons of Oil, yet the foresaid cheife Harbour (Fairhaven) could not performe their full lading there, by reason of the Flemmings and Danes being to the Northwards as aforesaid which doth yeerely hinder the Companies ships from making a Voyage¹."

The Dutch Company's charter had expired at the end of 1620. For the next two seasons they seem to have worked under provisional protection, as the Chambers could not agree among themselves about the proportion in which the year's cargo was to be divided amongst them. But in 1622 they came to an agreement, and obtained thereupon from the States General a new monopoly, to last 12 seasons till the end of 1634. In this document, which is dated 22nd Dec. 1622², it is recited that in recent years the Company had sent ships to Novaja Zemlja as well as Spitsbergen, which confirms the opinion expressed above that the eastern fishery had already been exploited by the Dutch.

Probably what moved the Dutch to close their ranks and unite their forces was the menacing attitude of the

¹ Purchas III. p. 469.

² Printed at length in Zorgdrager, German ed. pp. 212-214.

English. James I had agreed to a *modus vivendi* for three years, during which time he stipulated that the Dutch must make certain restitutions and payments to the Muscovy Company. These were never made, and the three years were now expired. Accordingly on August 8th, 1622, we find the whaling fellowship appealing to the King to extend his authority for their assistance¹. Whereupon the King published a declaration² that he will be compelled to take action unless the States speedily send over a commissioner to unite with Sir Noel de Caron in the settlement of the affair. He will consider any infringement upon the fishery to be a breach of treaty. These bold words, however, were easily estimated at their true value by the Dutch.

The London Company this winter again tried to restrain the Hull whalers from going to Spitsbergen, and were so far successful as to obtain an order from the Privy Council to the Mayor of Hull to prevent the whalers from sailing. The Mayor and Corporation replied with a letter, dated April 17th, 1623, in which they stated that they had obeyed the Council's instructions and had not permitted Thomas Anderson, Richard Warner, or any other of the town to trade to Spitsbergen, or elsewhere within the privileges of the Muscovy Company; "but the whole town and adjacent country remonstrate against this restriction of their trade as ruinous to them and their families, their ships being prepared to go this year as usual *to those parts, of which they profess to be the first discoverers*," that is to say, no doubt, to Edge Island, Hope Island, and the neighbourhood.

During the winter of 1622-23 yet another trouble was brewing for the Dutch and English whalers. Braem, head of the Copenhagen Company, with the King of Denmark's sanction, made an agreement with two merchants of St Jean de Luz, admitting them as partners. In the following season Braem sent up no Danish ships, but the Biscayers sent up two as Danish. When these arrived at Smeerenburg they were forbidden to fish by Cornelis Ys³, the Dutch commander, who explained to them that Mauritius Bay (as the Dutch called the north harbour of Fairhaven) belonged

¹ *Calendar of State Papers, Domestic*, 1619-23, p. 438.

² *Calendar of State Papers, Domestic*, 1619-23, p. 485.

³ This was the fourth year that Ys was in command.

to the Dutch and Danes together, but was closed against the ships of all other countries. He would not recognise them as Danish, and ordered them to go somewhere else. The English were equally inhospitable to them. "At our first arrival," wrote Fanne from Fairhaven, "there rode two Biskie shippes with the Flemings, but within a day or two they waied and stood for the Southward. But, inquired of the Flemings what port they were bound for, they answered, for the North Cape. But Master Mason is persuaded they are at Greeneharbour: to which purpose I wrote to Mr Catcher (at the Foreland) that he gives order to his shallop that goes to Bel-sound, to stand in for the harbour, to give the Captaine (Goodlard) true information." The shallop in question may be described as the English post-boat, which went up and down the coast calling at the different harbours from Fairhaven to Horn Sound and back once or twice during the season. It was this shallop that carried the various letters from which we have quoted. This year Fanne started the boat from Fairhaven, June 24th. Catcher received the mail at the Foreland and sent it on, June 29th. The boat looked in at Green Harbour, but did not find the "two Biskie ships"; then went to Bell Sound, where Goodlard received the mail, July 8th. He recapitulated the information received from the north in a letter, which he sent on the same day to Heley, doubtless at Horn Sound. He thus concludes, "with a heavie heart I write you the lamentable accident which happened here the 28th of June, our shallops all out in chase and my selfe asleepe. My brother (Peter Goodlard) having a shallop lying by the ship's side, spide a whale going into the Ice Bay (Recherche Bay), followed him and strucke him, and his rope being new ranne out with kinckes, which overthrew his shallop, where he lost his life with my Boy Bredrake being, as we thinke, carried away with the rope (the dearest Whale to me that ever was strucke in this harbour. There was never anie losse, I thinke, went so neere my heart)¹.

Catcher at the Foreland did well, but suffered from ice-troubles at the beginning of the season. He had a man

¹ Note, from this letter it appears that the English ships did not lie far within Recherche Bay, but near the mouth of it.



"shot accidentally with a Musket." The principal event of the season, however, happened at Fairhaven. Nathaniel Fanne, June 24th, wrote thence to Heley, as follows¹:

".....Wee arrived at our harbour with both our ships² in safetie upon the third of this present, blessed be God, finding the yeare past to have beene a verie hard season, in regard of the great quantitie of Snow and Ice but yet not very offensive to us in respect of our good harbour. Touching our proceeding upon our Voyage, by the 8 of this present we had killed 13 whales and then were all our Shallops constrained in, by reason of foule weather, till the 15th *dicto*, and upon the 15th we killed two more, which being all boyled but the heads and then estimated will hardly make past 80 Tunnes, which is a very small quantitie. The weather continued bad till the 22 *dicto*, and upon the 3 and 20th we killed three more, which by probabilitie will make neere 40 Tunnes. And thus wee doubt not by degrees we shall accomplish our Voyage, by the Grace of God."

"As touching our order for the Flemmings, wee went as yesterday aboard them, supposing that wee should have found the Danes there, but they are not as yet arrived, but wee found there five sailes of Flemmings, the Admirall 500 Tunnes, the Vice-admiral of the same burthen, the other three neere 200 each ship, having also 50 or 60 persons amongst them, having 4 and 20 Shallops belonging to their five Ships, and are building Houses and Tabernacles to inhabit, for they make new and substantiall; also they told us, they expected one or two Ships more everie day."

Of the conference then held between the Dutch commander and the English representatives, Sherwin and Fanne, we have a long official report³. Sherwin says that there were five Amsterdam and two Delft ships, with Cornelis Ys in command of all. Accordingly they went to see Ys and told him that the three years during which the King of England had agreed to let the Dutch fish in Spitsbergen were now passed. Ys "pleaded hereunto ignorance, neither would understand further in that poynt

¹ Purchas III. 736.

² The *Darling* (T. Sherwin, Master) and the *George* (John Mason, Master).

³ *State Papers, Domestic*, Addenda, James I, Vol. 43 (1623-25), No. 13.



than hee pleased." They then said they held a commission from the King "for the depressing of any Fleminge or Interloper which they should meete withall uppon this coast," but they hoped the Dutch would go quietly. Ys replied that, being a simple fisherman, he knew nothing about these matters. He had been sent up by his employers and would do what he had been hired to do. Finally the English captains said that in any case there were too many ships there to be properly accommodated in one harbour, and that the fishery thereby would be ruined not only for this year but for future seasons. "His answer only was that there was fish great store, and hee hoped to satisfie all. But I am sure it happened otherwise with us, and chiefly occasioned by them, having 30 shallops, for our 7, and kil'd 157 whales, which was more by 17 than were killed by our whole fleete in all the land." Thus the conference ended. It was almost the last attempt made by the English to assert their rights against the Dutch. The Dutch made so successful a voyage this year that they went home full-laden and left 60 tons of oil behind.

It only remains to add that the King of Denmark took up the case of the Biscay ships and emphatically reasserted his claim of sovereignty. He refused to recognise the names Spitsbergen and Mauritius Bay, endeavouring to substitute for them Christiansbergen and Christianshaffen. This diplomatic engagement lasted ten years, and led to no result¹. Braem's brother seems to have come up in 1625, but we are not informed whether he fished.

¹ Muller, pp. 246 *et seq.*

CHAPTER XII.

THE FINAL SETTLEMENT OF THE SPITSBERGEN FISHERY.

IN 1623 the Dutch felt themselves firmly planted at the north-west corner of Spitsbergen. Their habit now and henceforward was to send most of their ships at the beginning of the season to Jan Mayen, and a few to Mauritius Bay, whither others followed later. "The ships," wrote Zorgdrager (in 1620), "anchored in Dutch Bay, off the flat of Smeerenburg, in a row one beyond another, or so near to one another that a shallop could just pass between to tow the oil-casks from shore on board. An anchor was cast from forward into the bay, and the ship was made fast astern with a rope to the shore, either to the foundations of the coppers, or to some great stone, or to the jawbone of a whale, whereof some are still to be seen in various places as high piles set up for the purpose on the beach. Lying here, as in a desired and safe haven, 3 or 4 leagues inland from the sea, preserved and protected from all winds, they pursued their fishery with convenience and enjoyment, rowing their shallops round and to the ships in the bay, which in those days was usually full of fish, as their doings and remains sufficiently manifest in various accounts of this fishery, otherwise they would not have so solidly settled themselves by their oil-cookeries and laid up their ships so comfortably at anchor. Besides, they brought up double crews of sixty, seventy, and even eighty men, which were apportioned some to the shallops to kill the fish and tow them to the oil-cookeries on the shore; others to remain on land and cut the blubber from the fish, chop it up

small, boil down the oil, fill it into casks, and roll them down to the water. Others again were on the ships to bring the casks alongside, hoist them aloft with a pulley, and lade them into the ship....At this time there came yearly a small fleet of ships from Amsterdam, Rotterdam, Hoorn, and other towns, which were arranged in a row along the flat of Smeerenburg, each by its own cookery. Thus there were Amsterdam, Hoorn, Rotterdam, and other oil-cookeries, with their warehouses and cooperies, wherein a quantity of Greenland (*i.e.* whaling) implements were stored, casks made, bound and taken away, many things kept ready for future use, and stored away, when the ships sailed off home."

Originally there were only two "tents" at Smeerenburg, those of Amsterdam and the Danes. Presently other Chambers made good their position alongside of Amsterdam, possibly in 1623, the first year in which we hear of Delft ships at Mauritius Bay. Muller says¹ that after 1623 the Danes came no more to Smeerenburg, and that their place was occupied by the Hoorn, Enkhuizen, and Flushing men in 1625 and thenceforward. A number of "tents" and a big storehouse were erected on the land. The Danish Government protested; but protests, not backed by force, had no effect in those days. It is to be noticed, however, that Van der Brugge, writing in 1634, refers to the Danish casks lying at Smeerenburg, which implies that the Danes had not then abandoned that settlement. It appears from a letter of Christian IV to the States General (28th Dec. 1631) that the Dutch erected the fort at Smeerenburg against the Danes. About 1625 the Danes seem to have taken possession of Robbe Bay, which they held thenceforward¹. In 1626 there were five big Dutch "tents" at Smeerenburg. By 1633 all the Chambers had "tents" there, and perhaps warehouses too. Amsterdam had two great "tents"; next on the west came Middelburg and probably Veere, then Flushing, Enkhuizen, Delft, and Hoorn. Rotterdam also had a "tent." We find no Zaandam establishment mentioned. At a later date Zaanland was the most important

¹ See the authorities quoted by Muller, *N. Co.* p. 143.

Dutch centre for fitting out whalers, and almost every well-to-do Zaanlander had a share in one or more whalers. The portrait of Pieter Gijzen, one of the earliest Zaandam whaling skippers, painted on glass and dated 1641, is still to be seen in the Zaanlijk Museum.

The big "tents" doubtless resembled the second Dutch building at Bell Sound, which was 80 feet long by 50 feet wide. We know, from the account of the finding of the dead winterers in 1535, that the tent of Middelburg had a front door and a back door. The front door opened on a great room, in which were the men's sleeping-bunks. A wall with a door in it opened thence into a smaller room behind, called "the buttry" in the old English translations. The back door opened on this smaller room, and from it went a staircase to the loft or attic. Such seems to have been the usual plan of these houses, according to Martens. The coopers' worksheds, with an attic for the men to sleep in, were separate buildings, and so were the warehouses. There were also many smaller huts. Raven and Van der Brugge mention capstans planted along the shore for hauling up ships. Finally, there were a church¹ and a fort armed with cannon; the latter was built on part of the land at one time occupied by the Danes. All these buildings, with about a score of coppers and their furnaces, and to each of them three big cooling-troughs, must have pretty well filled the sea front of Smeerenburg².

"All these Cookeries and Warehouses," writes Zorgdrager (p. 224), "along the flat of Smeerenburg looked like half a small town or village, which therefore was not inaptly named Blubbertain, after the industry. I have not been able to find out exactly how many oil-cookeries and warehouses in all there were. At present the foundations and ruins of 8 or 10 oil-coppers are distinguishable, and those of the warehouses. The rest are all fallen together with time, so that nothing more is to be found of them. Seeing that the ships, as already stated, brought up double crews, it was very dull, not only on the ships

¹ Muller, p. 147.

² The Dutch Company's memoir of 2 Feb. 1634, describes Smeerenburg as then consisting of "maisons de pierre, beaucoup de loges ou Cabannes, et pour defense un fort, muni d'Artillerie."

and boats, but also ashore. There came up, therefore, as in a camp, some sutlers who sold their wares, such as brandy, tobacco, and the like, in their own huts or in the warehouses. Bakers went there also to bake bread. In the morning, when the hot rolls and white bread were drawn from the oven, a horn was blown, so that some enjoyment was then to be had at Smeerenburg."

In its great days, in the ten years following 1633, Smeerenburg was a busy and populous place for a couple of months each year; but after it had fallen to ruin and disappeared, its supposed magnitude was greatly exaggerated in sailors' yarns. They came to talk of Smeerenburg as though it had been a town with fine wooden houses and a summer population of from 10,000 to 20,000 persons. Its frequenters in a full season may have numbered 1,000 to 1,200 at the outside.

The English had no summer quarters at all corresponding in extent to Dutch Smeerenburg. Every year more Dutch ships came up to the fishery, and more accommodation was required; but the Muscovy Company's monopoly was on the whole efficiently maintained, so far as the western bays of Spitsbergen were concerned, against English interlopers. It was the policy of the Muscovy Company not to frighten away the whales by killing too many. They foresaw that the crowd of Dutch would soon destroy the fishery in Mauritius Bay, as in fact it did. About 1624 therefore the English forsook Fairhaven and Magdalena Bay, which were thereupon, as we shall see, annexed by the Dutch. Thenceforward the English held all the bays from King's Bay southward. Green Harbour (by which is meant the whole of Ice Sound), Bell Sound, and Horn Sound were their principal stations, and they probably had huts by each of them as well as in Sir Thomas Smith's Bay. The last-mentioned station, however, seems to have been given up when the whales abandoned the north-west corner of Spitsbergen.

In 1624 five well-appointed English ships coming to the fishery met two Zeelanders, and would have driven them about, but a Dutch man-of-war arrived in the nick of time to protect them. The captain of this ship, Willem Tas of Haarlem, made ready to fight, against great odds,

said the Dutch; and the English accordingly "climbed down," and appear to have been lectured by Tas. Tas on his return home gained great credit for this bloodless episode, and for the manner in which he had carried himself¹. When more Dutch ships arrived, making 20 in all, the English retired. One of the Dutch ships was doubtless the small vessel of 80 tons, under the command of Simon Willemsz, with Jacob Jacobsz of Edam as pilot, whose instructions were to sail along the north coast to Cape Tabin, and try for a north-east passage that way². How far they really went we do not know. In the bold fashion of Arctic navigators in those days they said they reached 83° N., but as all such claims that we have thus far been able to investigate have proved ludicrously exaggerated, we may well doubt the accuracy of this one. Let it suffice to say that the Seven Islands do not appear on Dutch charts before 1663. It is therefore most unlikely that this expedition went even thus far. The ship was back at Smeerenburg in time to take part in the season's whaling³. The Dutchmen made a good voyage, but they imprudently sent away one of their ships full-laden before the rest were ready. She was captured by a Dunkerker, and held to ransom for 10,000 guildens. The other ships sailed home together "like grim lions," all safely outriding a terrible gale, which overtook and scattered them 20 miles from land⁴.

By this time the quantity of train-oil and whalebone imported by the different whaling fleets into Europe had considerably lowered the price of those commodities. Train-oil was used as an illuminant, but chiefly for the manufacture of soap. The better kind of soft soap was made from it, and employed in fine laundry work. Perhaps it was the increased supply of good soap, resulting from the discovery of Spitsbergen, that led to the great development in laces and linen which marks the costume of the wealthy at this period. The small Tudor

¹ Wassenauer, *Hist. verh.* VIII. fol. 86. Apropos of this incident, Wassenauer gives a brief statement of the grounds of the Dutch claim to a share of the Spitsbergen fishery (ff. 86-96).

² Wassenauer, *Hist. verh.* VIII. f. 86.

³ Wassenauer, *Hist. verh.* VII. f. 95, IX. f. 123.

⁴ Wassenauer, *Hist. verh.* VIII. f. 86.

ruff expanded to the dimensions with which 17th century Dutch portraits have made us familiar. Probably the laces of the Cavaliers were washed with Spitsbergen soap. The archives of this period are full of references to soap. In 1624 Sir J. Bouchier obtained a patent from the King for the manufacture of a new kind of soap, for which he not only paid money and a royalty, but gave the King as a fine "Sir Paul Pindar's great diamond, worth £35,000¹." The Muscovy Company watched the soap-makers very carefully, and often petitioned about them, for they were always ready to smuggle in whale-oil from Holland. When Plymouth or Hull oppose the Company it is on the ground that their soap-makers cannot get enough whale-oil for their trade.

The uses of whalebone were fewer, so in 1624 the price had fallen to two pence per pound², and this in spite of the fact that new uses had been found for it. At Amsterdam there was an English ivory-turner, John Osborne by name, a native of Worcester. In 1618 he invented a method of uniting, apparently by heat and pressure, the thin pieces of whalebone together into a black mass, which became so supple and soft that it could be pressed into any shape in a metal mould or beneath an engraved plate of metal, and would take the impression of the finest lines. The substance was as black as jet, and was used to ornament looking-glass frames, sideboards, mantelpieces, knife-handles, and so forth. Fine medallions of Prince Maurice and his wife, impressed by John Osborne in this material, are not uncommon. Examples may be seen in the British Museum. I have two in my own possession. On regarding the back of them it will be perceived that they are made of whalebone, not horn, as usually stated in sale catalogues. For this invention, which we are told doubled the price of whalebone, Osborne received a pension for ten years from the States General³.

The Muscovy Company had not yet given up all hope

¹ *Calendar of State Papers, Domestic*, 1623-25, p. 154. The diamond in question was brought by Sir Paul Pindar from Turkey. I cannot find out what happened to it in later times. There are some further references to it in the State Papers, implying that it was not given but sold to Charles I.

² Ditto, p. 342.

³ Wassenaer, *Hist. verh.* VIII. f. 87; Muller, pp. 102, 127.

of getting from the Dutch the £22,000 which King James had adjudged they should pay. In June, 1624, and January, 1625, they petitioned to have this payment exacted and the fishery "regulated"! On this second occasion the Privy Council seemed inclined to act; they even went so far as to direct Buckingham, the Lord Admiral, to fit out ships sufficient in number and force to seize the Dutch ships that intrude upon the fishing in Greenland (Spitsbergen). Buckingham issued orders accordingly to Captain Love, appending a warrant, from which it appears that the Dutch ships were to be attacked, either outward or homeward bound, rather than up at Spitsbergen¹. There was even talk of war between England and the States on the burning questions of Amboyna and Spitsbergen². All this bluster, however, ended in words. There were no ships available to attack the whalers, and none seem to have been sent out. In fact, James at this time concluded a new alliance with the Dutch against Spain, and had no intention of seriously quarrelling with his ally about a few casks of train-oil. The season of 1625 passed quietly; and, though Joachim's suggestion that the English and Dutch claims for compensation should be set off against one another was not accepted, that in fact happened.

The Dutch whaling fleet at the time, though perhaps it did not know it, was threatened with danger from another quarter. Spain kept a spy in London named Egidio Ouwers. In April, 1625, he wrote to Cardinal de Ceva at Brussels, suggesting that the King of Spain should send ships to ravage the Dutch herring fishers in the North Sea, and afterwards turn towards Spitsbergen and take the whalers. Ouwers said that he was going next day to Holland and Zeeland, and would send particulars about the ships there about to sail³. Whether this proposal was seriously considered we know not; it certainly was not carried out.

It was the misfortune of the London Whaling Company

¹ See *Calendar of State Papers, Domestic*, 1623-24, pp. 447, 454, and *State Papers, Domestic*, James I, Vol. 184 (Feb. 1625), No. 50.

² Letter of Secretary Conway to Colonel Sir E. Conway, 20 February, 1625. See also Twisck's *Chronijk*, Vol. II., *sub an.*

³ *Calendar of State Papers, Domestic*, Add. 1625-49, p. 6.

during the whole of its existence to be quarrelling with somebody. No sooner did the lapse of time and the logic of circumstances terminate its quarrel with the Dutch than it came to loggerheads with English and Scotch competitors. We have seen how in 1623 it prevented the Hull whalers from setting forth. Whether it likewise kept them at home in 1624, or drove them away from the fishery, we do not know. Certain it is that by 1626 the rage of the men of Hull against the whalers of London was very hot indeed. York and Hull united to send nine ships to Spitsbergen in that year, under the command of R. Prestwood and R. Perkins. The London fleet consisted of "12 sayle of good shippes." The Hull men were first in the field. Instead of avoiding the bays frequented by the London ships they sailed straight for Bell Sound, for the place then named Whale Head, where were the London cookery, tents, and warehouse. This is the first time Whale Head is mentioned. It is not marked on any old chart. All we can say at present is that it was situated on the south side of Bell Sound, near the mouth of Ice Bay, which the Dutch called Schoonhoven and we now know as Recherche Bay.

Hither then came the Hull men, and here they landed and took away "8 shallops, burned the caske, broke the coolers, and spoyled all the other materialls fitt for the said fishing...demolished the houses and broke down the fort and Plattforme built the yeare before for defence of the said harbor." It is evident that revenge, not robbery, was the purpose of this incursion. The Hull men made no attempt to occupy the site of the London settlement, but moved across Bell Sound to a cove in its north shore, named Bottle Cove, and there and on "the Rock in Bell Sound," which is doubtless to be identified with Axel Island, they pitched their tents and set up their coppers. This remained the Hull station for over 25 years¹. Bottle Cove is the small bay just outside Axel Island to which Willem Van Muyden retreated in 1613 when sent away by Captain Joseph. On all early Dutch charts it is named Willem Van Muyden's Haven. In modern times the name, mis-

¹ *Vide* Horth's statement of 7 Feb. 1654, cited below

spelled, was transferred to the great sound within Axel Island whose original and proper name is Low Sound, though the Dutch always called it Klok Bay. In 1898 the Swedes added to the confused nomenclature of this region by giving to Bottle Cove the name of their ship, the *Antarctic*.

When Captain William Goodlard arrived at Whale Head with four ships and a pinnace we may be sure that he was considerably disturbed in his mind. He thereupon "adressed himself with one shipp and a Pinace unto Bottle Cove, where the said Shippes of Yorke and Hull were at anchor, and in friendly manner sending aboard them and demanding by what authoritie they had comitted that outrage and requiring satisfaccion of them they refused the same and prepared to assault him...as will more particularly appear...by a Journal thereof made by the said Capt. Goodlad," which journal we unfortunately do not possess¹. In consequence of these apparently high-handed proceedings, Prestwood and Perkins were summoned before the Privy Council at Whitehall on November 15th, "who heard the dispute between the two companies and found the matter complicated." They accordingly directed the Lord Admiral to institute an enquiry in the Court of Admiralty for examination of witnesses on oath as to matters of fact, and they appointed a Committee to consider and report on the whole matter, the two accused being discharged upon bond to appear when called for. The Law officers of the Crown succeeded in accommodating the dispute by the admission of three adventurers of York and three of Hull into a "joint stock with the Muscovy Company²."

Matters, however, did not settle down peaceably, for in the following March we find the London Company stating that the arrangement imposed upon them is that this year (1627) they shall send up 3,000 tons of shipping³, whereof York and Hull are to have one-fifth. They protest against the arrangement. It seems doubtful indeed whether the

¹ *Petition to the Privy Council in State Papers, Domestic*, Charles I, Vol. 39 (Nov. 1626), No. 67.

² *Calendar of State Papers, Domestic*, 1627-28, p. 10.

³ See list of 11 ships hired for the season with the number of their seamen. *Calendar of State Papers, Domestic*, 1627-28, p. 126.

suggested amalgamation took place. The London Company also stated that Nathaniel Edwards, Andrew Hawes, and the towns of Yarmouth and Lynn were intending to interlope. The fact was that Edwards had obtained a Scotch Royal License for himself and his partners "to fish and trade in Greenland (Spitsbergen) for 21 years for the provision of Scotland and the soap works of the said N. Edwards with oils¹." The English Privy Council, after re-hearing the case, decided (April 4, 1627) that "Edwards and the others, who were going to use English ships under their Scotch patent, are to desist and to sell their provisions at market rates to the Muscovy Company²."

Notwithstanding the Privy Council, interlopers went up as usual in 1627. Hawes and Batten of Yarmouth, though expressly forbidden to set forth the ship and pinnace they were openly preparing for the fishery, sent them up and added insult to injury by hiring "one Sampson, a Baske," who was an old servant and chief harpooner of the London Company.

In 1627 the voyage was a bad one, and the London Company, henceforward generally called the Greenland Company, was much discouraged. As always happened after a bad season, there was illicit importation of whale-oil from abroad for use by English soap-makers. In January, 1628, accordingly, we meet with a renewal of the prohibition of foreign whale-oil and whalebone³. Nevertheless, two months later oil was successfully smuggled, and the soap-makers were again found smuggling in January, 1630⁴.

In 1628 the Yarmouth interlopers, though forbidden by the Privy Council, went again to Spitsbergen. In 1629 they were ordered to enter into a bond for £1,000 not to do so again, but they disobeyed and sailed. In 1630 they went up once more⁵, "but were impeded, arrested and returned empty home," which action "bred a general grievance for want of oils, and consequently of soap."

¹ *State Papers, Domestic*, Charles I, Vol. 32, No. 52. The license was granted at Holyrood House, 28 July, 1626.

² *Calendar of State Papers, Domestic*, 1627-28, pp. 113, 125.

³ British Museum MS. Add. 4155, and *State Papers, Domestic*, Charles I, Vol. 91 (Jan. 1628), No. 53.

⁴ *Calendar of State Papers, Domestic*, 1629-31, p. 169.

⁵ *Calendar of State Papers, Domestic*, Add. 1645-49, p. 394.

This led to a protest from Lord Dupplin, Lord Chancellor of Scotland, addressed to Secretary Dorchester. He points out that the so-called interlopers were "patentees for the Greenland trade of Scotland, and that this kind of treatment is likely to breed trouble between the two countries¹." The prohibition, however, was renewed, and in May, 1631, the Bailiffs of Yarmouth sent up Hoarth's bond not to sail "into any parts within the privileges" of the London Company. Hawes, Batten, Hoarth, and Wright were all really working for the Scotch soap-maker Edwards. We shall see that the Hull ships went up in 1631 as usual, and so did those of Wright and Hoarth.

¹ *State Papers, Domestic*, Charles I, Vol. 185 (Feb. 1631), Nos. 28, 29.

CHAPTER XIII.

THE FIRST WINTERING IN SPITSBERGEN.

THE event in Spitsbergen for which 1630 was chiefly memorable happened to the Londoners. The following account is quoted or condensed from the relation published by one of the English whalers, Edward Pellham¹.

"Wee set sayle from London the first day of May, 1630, and having a faire gale, we quickly left the fertile banks of England's pleasant shoares behind us. After which, setting our comely sayles to this supposed prosperous gale, and ranging through the boysterous billowes of the rugged Seas, by the helpe and gracious assistance of Almighty God, wee safely arrived at our desired Port (Sir Thomas Smith Bay) in Greenland (Spitsbergen), the eleventh of June following. Whereupon, having moored our ships and carryed our caske ashoare, wee, with all expedition, fell to the fitting up of our Shallops, with all thinges necessarie for our intended voyage. Wee were in companie three Ships²; all which were then appointed by the order of our Captaine, Captaine William Goodler (Goodlard), to stay at the Foreland, until the fifteenth of July; with resolution, that if we could not by that time make a voyage according to our expectation, then to send one ship to the Eastward, unto a fishing place (Edge Island) some fourscore leagues from thence; whither, at

¹ *Gods Power and Providence shewed in the Miraculous Preservation and Deliverance of eight Englishmen, left by mischance in Green-land (Spitsbergen), Anno 1630, nine moneths and twelve dayes.....Faithfully reported by Edward Pellham one of the eight men aforesaid.* London, 1631, 8vo. A reprint, edited by Adam White, was published by the Hakluyt Society in 1855.

² *i.e.* three ships at the Foreland. There were others at Bell and Horn Sounds. Goodlard was at Bell Sound.

the latter end of the yeare, the Whales use more frequently to resort."

This reference to the Edge Island fishery is important. It shows that it was frequented by the London ships, as well as by the Dutch and the men of Hull, and that it was mainly resorted to at the end of the season. The whales, as we have seen, moved from west to east as the season advanced. Zorgdrager says that they reached the south of Edge Island both by way of Hinlopen Strait and round the South Cape. The Disco Fishery was evidently in full swing by 1630.

"A second of the three ships was designed for Greenharbour (*i.e.* for Ice Sound), a place some fifteen leagues distant to the southward, there to trie her skill and fortune, if it were possible there to make a voyage¹. The third ship, which was the same wherein wee were², was appointed to stay at the Foreland untill the twentieth of August. But the captaine, having made a great voyage at Bell Sownd, dispatches a Shallop towards our ship, with a command unto us to come to him at Bell Sownd aforesaid; his purpose being, both to have us take in some of his Trane-Oyle, as also, by joyning our forces together, to make the fleete so much the stronger for the defence of the merchants goods homeward bound, the Dunkirkers being very strong and rife at sea in those dayes. Upon the eighth day of August (thereupon), leaving the Foreland, wee directed oure course to the Southward, towards Greenharbour, there to take in twenty of our men, which had out of our ships company beene sent into the lesser ship for the furtherance of her voyage. But the winde being now contrary, our ship could no way lye our course. The fifteenth day, being calme and cleare and our ship now in the Offing, some foure leagues from Blacke-point and about five from the Maydens Pappes³ (which is a place famous, both for very good and for great store of venison), our

¹ It is curious how relatively bad a whaling bay Ice Sound seems always to have been.

² She was the *Salutation*, Captain Mason. Mr Gray was one of the ship's company. In 1663 he wrote an account of the whale-fishery for the Royal Society. *Register Book of the R. S.* Vol. II. (1662-3), pp. 156, 308, reprinted in the *Geographical Journal* (June, 1900), pp. 631-636, with sketches reproduced.

³ Both places are on the Foreland.

Master sent us eight men here named¹, altogether in a shallop, for the hunting and killing of some Venison for the ship's provision. Wee thus leaving the ship, and having taken a brace of dogs along with us, and furnisht ourselves with a snap-hance, two lances, and a tinder-boxe, wee directed our course towards the shoare where in foure houres wee arrived, the weather being at that time faire and cleare, and every way seasonable for the performance of our present intentions²."

That day they "laid fourteene tall and nimble Deere along," and then rested for the night, intending to continue their hunt next day and return to the ship. But next day fog and ice forced the ship to stand off to sea, and they lost sight of her, so they hunted southward along the shore, killing eight more reindeer, and so on the 17th reached Green Harbour, only, however, to find that the ship had been there before them, taken away the twenty men, and vanished.

Three days later was the date appointed for the homeward sailing of the ship from Bell Sound, sixteen leagues further south. Accordingly they threw their venison overboard to lighten their boat and proceeded southwards, with but a vague knowledge of where Bell Sound was and what its entrance looked like. Fog came upon them and they "were faine to grabble in the darke" for their way. They thus overshot the mark and went on southwards ten leagues at least too far. Suspecting their blunder they returned northwards again to within two miles (as afterwards appeared) of the mouth of Bell Sound, but were then persuaded to go south again by one of their number, who thought he knew the locality. Back accordingly they went as far as before only to find themselves in the wrong. So they again turned round and this time found Bell Point, at the mouth of Bell Sound, on the 21st of August.

Owing to a strong wind from the E.N.E. they could not row against it into Bell Sound, but were compelled to

¹ William Fakeley, gunner; Edward Pellham, gunner's mate, the author of this relation; John Wise and Robert Goodfellow, seamen; Thomas Ayers, whale-cutter; Henry Belt, cooper; John Dawes and Richard Kellett, landmen.

² Zörgdrager, German ed., p. 11, states that some English ships, commanded by Captain Goodlers, had to sail round Spitsbergen this year. This is a mistake. Spitsbergen was not circumnavigated till much later.

“cove” some two miles within Bell Point. “We forthwith,” continues Pellham, “sought out and found an harbour for our Shallop; and having brought her thereunto, two of our men were presently dispatched over land unto the Tent at Bell Sownd, to see if the ships were still there, of which, by reason of the times being expired and the opportunitie of the present faire winde, we were much afraid. The Tent being distant ten miles at the least from our Shallop, our men at their coming thither finding the ships to be departed out of the Roade, and not being certaine whether or not they might be at Bottle Cove (three leagues distant on the other side of the Sownd) riding there under the Loom of the land; again return unto us with this sadde newes.”

I quote this whole passage because it gives the most accurate account I have found of the position of the English tent. Unfortunately the promontory named Bell Point is almost circular and has no point that can be definitely assigned as a cape. The best we can do is to assume that, coming round the curve of the coast from the southward, they stopped when met by the full strength of the E.N.E. wind. That would be about 2 miles west of the point now known as Cape Lyall. The tent therefore ought to be sought for eight miles by land round the coast in the other direction. This would bring us to the very bottom of Ice Bay, the modern Recherche Bay, a very unlikely position for a whaling station. Other references to the place, already noticed above, suggest that the English tents were near the mouth of Ice Bay, and that is where traces of the buildings should be sought.

“The storme of winde hitherto continuing, about midnight fell starke calme, whereupon we, unwilling to lose our first opportunity, departed towards Bottle Cove, betwixt hope and feare of finding the ships there; whither comming the two-and-twentieth and finding the ships departed, we, having neither Pilot, Plat, nor Compasse for our directors to the Eastward (*i.e.* to Edge Island) found ourselves (God he knoweth) to have little hope of any delivery out of that apparent danger. Our feares increased upon us, even whilst we consulted whether it were safest for us either to goe or stay. If goe, then thought wee upon the dangers in sayling, by reason of the much yce in

the way, as also of the difficultie in finding the place when wee should come thereabouts. If we resolved still to remaine at Bell Sownd then wee thought that no other thing could be looked for but a miserable and a pining death seeing there appeared no possibility of inhabiting there, or to endure so long, and so bitter a winter."

They thought of the experienced men who had refused all the tempting offers of the Muscovy Company to winter in Spitsbergen. They thought of the condemned criminals who had preferred hanging at home to freezing here. "The remembrance of these two former stories as also of a third (more terrible than the former, for that it was likely to be our own case), more miserably now affrighted us: and that was the lamentable and unmanly ends of nine good and able men, left in the same place heretofore by the selfe same Master that now left us behinde: who all dyed miserably upon the place, being cruelly disfigured after their deaths by the savage beares and hungry foxes which are not only the civilest, but also the onely inhabitants of that comfortlesse Countrey: the lamentable ends and miscarriage of which men, had beene enough indeed to have daunted the spirits of the most noble resolution.... Thus, like men already metamorphosed into the yce of the Countrey and already past both our sense and reason, stood wee with the eyes of pittie beholding one another."

After a period of despair, "shaking off all childish and effeminate fears it pleased God to give us hearts like men¹." They thereupon decided to go back to Green Harbour with their two mastiffs and kill reindeer for their winter provision. On August 25th they sailed away with a fair wind and reached Green Harbour in twelve hours. They made a tent of a sail and slept, and the next day they went to a place called Coles Parke², about two leagues off, where they killed seven reindeer and four bears. They returned to their tent for the night and next day rowed again towards Coles Parke and killed twelve more

¹ Captain Anderson relates that when these men realized that they must winter in Spitsbergen, "they began sometimes to crye out and lament their sad fate, other times to weild and fight: but at last with mutual persuasions to provide for the future."

² The modern Coles Bay, generally mispelt Coal Bay, in the south side of the Sound.

reindeer. They loaded their boat with venison and filled another boat they found there "with the Graves of the Whales that had beene there boyled this present year." and so divided into two parties they set out to return to the hut in Bell Sound. Night prevented their starting, and the next day, being Sunday, they would not move. But on Monday morning "the day was no sooner peept, but up we got, fitting ourselves and businesses for our departure." It took them two days of bad weather to reach Bottle Cove, where they were forced to stay, landing and making their boats fast to an anchor. In the night the south-west wind blew a gale right into the cove and "both our Shallops casting amongst the shoare, sunke presently in the sea, wetting by this means our whole provision, the weather withall beating some of it out of the Boates, which wee found swimming up and downe the shoare. For, coming out of our tent in the meane time, judge you what a sight this was unto us, to see by mischance, the best part of our provision (the only hope of our lives) to be in danger, utterly to be lost (or at least spoyled with the sea-water), for which we had taken such paines, and run such adventures in the getting."

Being at the Hull settlement they were not without implements. There appear to have been ropes about, as well as a capstan. It will be observed that they found no "fritters" at this place, as they did at Green Harbour. This confirms the statement that the Hull men had been prevented from whaling in the season just over. "A Halser thereupon we got, which fastening upon our shallops, wee, with a Crabbe or Capstang, by maine force of hand, heaved them out of the water upon the shoare. This done all along the sea side we goe, seeking there and taking up such of our provisions as were swumme away from our Shallops."

On September 3rd they were back in Bell Sound. "Our first businesse was to take our provision out of our Shallops into the Tent; our next, to take a particular view of the place, and of the great tent especially, as being the place of our habitation for the ensuing Winter. This, which we call the Tent, was a kinde of house (indeed), built of Timber and Boardes very substantially and covered

with Flemish Tyles, by the men of which nation it had, in the time of their trading thither, been builded¹. Fourscore foot long it is, and in breadth fiftie. The use of it was for the Coopers, employed for the service of the Company, to worke, lodge, and live in, all the while they make caske for the putting up of the Trane Oyle."

They had intended to go back to Green Harbour for more reindeer, but the bad weather and cold prevented them. "Things being at this passe with us, we bethought ourselves of building another smaller Tent with all expedition; the place must of necessity be within the greater Tent. With our best wits, therefore, taking a view of the place, we resolved upon the South side. Taking downe another lesser Tent therefore (built for the Land-men hard by the other, wherein in time of yeare they lay whilst they made their Oyle) from thence we fetcht our materials. That Tent furnisht us with one hundred and fifty deale-boards, besides Posts or Stancheons and Rafters. From three Chimneys of the Furnaces wherein they used to boyle their Oyles, wee brought a thousand Bricks: there also found wee three Hogsheads of very fine Lyme, of which stuffe wee also fetcht another Hogshead from Bottle Cove, on the other side of the Sownd, some three leagues distant. Mingling this Lyme with the Sand of the Sea shore, we made very excellent good mortar for the laying of our Bricks: falling to worke whereupon the weather was so extreame cold, as that we were faine to make two fires to keepe our mortar from freezing. William Fakely and my selfe, undertaking the Masonrie, began to raise a wall of one bricke thicknesse, against the inner planks of the side of the Tent. Whilst we were laying of these Bricks, the rest of our Companie were otherwise employed every one of them: some in taking them downe, others in making of them cleane, and in bringing them in baskets into the Tent. Some in making mortar, and hewing of boards to build the other side withall, and two others all the while in flaying of our Venison. And thus, having built the two outermost sides of the Tent with Bricks and Morter, and our Bricks now almost spent, wee were enforc'd to build

¹ See above, p. 108.

the other two sides with Boards; and that in this manner. First, we nayl'd our Deale boards on one side of the Post or Stancheon, to the thicknesse of one foot: and on the other side in like manner: and so filling up the hollow place betweene with sand, it became so light and warme, as not the least breath of ayre could possibly annoy us. Our Chimneys vent was into the greater Tent, being the breadth of one deale board and foure foot long. The length of this our Tent was twenty foot, and the breadth sixteene; the heighth tenne; our seeling being Deale boards five or sixe times double, the middle of one joyning so close to the shut of the other, that no winde could possibly get betweene¹. As for our doore, besides our making it so close as possibly it could shut; we lined it moreover with a bed that we found lying there, which came over both the opening and the shutting of it. As for windowes, we made none at all, so that our light wee brought in through the greater Tent, by removing two or three tyles in the eaves, which light came to us through the vent of our Chimney. Our next worke was, to set up foure Cabbins, billeting our selves two and two in a Cabbine. Our beds were the Deeres skinnes dried, which we found to be extraordinary warme, and a very comfortable kinde of lodging to us in our distresse. Our next care then was for firing to dresse our meate withall, and for keeping away the cold. Examining, therefore, all the Shallops that had beene left a-shoare there by the Ships, we found seven of them very crazie, and not serviceable for the next yeare. Those wee made bold withall, brake them vp and carried them into our house, stowing them over the beames in manner of a floore intending also to stow the rest of our firing over them, so to make the outer Tent the warmer, and to keepe withall the snow from dryving through the tyles into the Tent, which snow would otherwise have covered every thing, and have hindered us in comming at what wee wanted. When the weather was now grown colde, and the dayes short (or rather no dayes at all) wee made bold to stave some emptie Caske that were there left the yeare before, to the quantitie of a hundred tunne at

¹ Anderson says that their room was half under ground and half above.

least. We also made use of some planks and of two old Coolers (wherein they cool'd their Oyle) and of whatsoever might well be spared, without damnifying of the voyage the next year. Thus, having gotten together all the firing that wee could possibly make, except we would make spoyle of the Shallops and Coolers that were there, which might easily have overthrowne the next yeares voyage, to the great hindrance of the Worshipfull Companie, whose servants wee being, were every way carefull of their profite. Comparing, therefore, the small quantitie of our wood, together with the coldnesse of the weather, and the length of time that there wee were likely to abide, we cast about to husband our stocke as thriftily as wee could, devising to trie a new conclusion. Our tryall was this: When wee rak't up our fire at night, with a good quantitie of ashes and of embers, wee put into the midd'st of it a piece of Elmen wood—where, after it had laine sixteene houres, we at our opening of it found great store of fire upon it, whereupon wee made a common practice of it ever after. It never went out in eight months or thereabouts.

“Having thus provided both our houses and firing; upon the twelfth of September, a small quantity of drift yce came driving to and fro in the Sownd. Early in the morning therefore wee arose, and looking every where abroad, we at last espyed two Sea-horses lying a-sleepe upon a piece of yce: presently thereupon, taking up an old Harping Iron that there lay in the Tent and fastening a Grapnell Roape unto it, out launch't wee our Boate to row towards them. Comming something neere them, wee perceived them to be fast a-sleepe: which my selfe, then steering the Boate, first perceiving, spake to the rowers to hold still their Oares, for feare of awaking them with the crashing of the yce; and I, skulling the Boate easily along, came so neere at length unto them, that the Shallops even touch'd one of them. At which instant, William Fakely being ready with his Harping Iron, heav'd it so strongly into the old one, that hee quite disturbed her of her rest: after which, shee receiving five or sixe thrusts with our lances, fell into a sounder sleepe of death. Thus having despach't the old one, the younger being loath to leave her damme, continued swimming so long about our Boate, that with our lances we

kill'd her also. Haling them both after this into the Boate, we rowed a-shoare, flayed our Sea-horses, cut them in pieces to roast and eate them. The nineteenth of the same moneth we saw other Sea-horses, sleeping also in like manner upon severall pieces of yce; but the weather being cold, they desired not to sleepe so much as before, and therefore could wee kill but one of them, of which one being right glad, we returned again into our Tent.

"The nights at this time, and the cold weather increased so fast upon us, that wee were out of all hopes of getting any more foode before the next Spring; our onely hopes were to kill a Beare now and then, that might by chance wander that way. The next day, therefore, taking an exacter survey of all our victuals, and finding our proportion too small by halfe, for our time and companie, we agreed among our selves to come to an Allowance, that is, to stint our selves to one reasonable meale a day, and to keepe Wednesdayes and Fridayes Fasting dayes, excepting from the Frittars or Graves of the Whale (a very loathsome meate) of which we allowed our selves sufficient to suffice our present hunger, and at this dyet we continued some three moneths or thereabouts.

"Having by this time finished what ever we possibly could invent for our preservations in that desolate desert; our clothes and shooes also were so worne and torne (all to pieces almost) that wee must of necessity invent some new device for their reparations. Of Roape-yarne therefore, we made us thread, and of Whale-bones needles to sew our clothes withall. The nights were wax't very long, and by the tenth of October the cold so violent, that the Sea was frozen over, which had beene enough to have daunted the most assured resolutions. At which time, our businesse being over, and nothing now to exercise our mindes upon, our heads began then to be troubled with a thousand sorts of imaginations. Then had wee leisure (more than enough) to complaine our selves of our present and most miserable conditions. Then had wee time to bewaile our wives and children at home, and to imagine what newes our unfortunate miscarriages must needes be unto them. Then thought wee of our parents also, and what a cutting Corasive it would be to them, to heare of the untimely deaths of their

children. Otherwhiles againe, wee revive ourselves with some comfort, that our friends might take, in hoping that it might please God to preserve us (even in this poore estate) untill the next yeare. Sometimes did we varie our griefes, complaining one while of the cruelty of our Master, that would offer to leave us to these distresses; and then presently againe fell wee, not onely to excuse him, but to lament both him and his companie, fearing they had beene overtaken by the yce and miserably that way perished.

“Thus tormented in mind with our doubts, our feares, and our griefes, and in our bodies, with hunger, cold and wants, that hideous monster of desperation began now to present his ugliest shape unto us; hee now pursued us, hee now laboured to seize upon us. Thus, finding our selves in a Labyrinth, as it were, of a perpetuall miserie, wee thought it not best to give too much way unto our griefes; fearing they also would most of all have wrought upon our weaknesse. Our prayers we now redoubled unto the Almighty, for strength and patience in these our miseries and the Lord graciously listned unto us, and granted these our petitions. By his assistance therefore, wee shooke off these thoughts and cheer'd up our selves againe, to use the best meanes for our preservations.

“Now, therefore, began we to thinke upon our Venison and the preserving of that, and how to order our firing in this cold weather. For feare, therefore, our firing should faile us at the end of the yeare, wee thought best to roast every day halfe a Deere and to stow it in hogsheads. Which wee, putting now in practice, wee forthwith filled three Hogsheads and an halfe, leaving so much raw as would serve to roast every Sabbath day a quarter, and so for Christmas day and the like.

“This conclusion being made amongst us, then fell wee againe to bethinke us of our miseries, both passed and to come: and how (though if it pleased God to give us life) yet should we live as banished men, not onely from our friends but from all other companie. Then thought we of the pinching cold and of the pining hunger; these were our thoughts, this our discourse to passe away the time withall. But as if all this miserie had beene too little, we presently found another increase of it: For, examining our provisions

once more, we found that all our Frittars of the Whale were almost spoyled with the wet that they had taken, after which, by lying so close together, they were now growne mouldie ; And our Beare and Venison we perceived againe, not to amount to such a quantity as to allow us five meales a weeke—whereupon, we were faine to shorten our stomacks of one meale more—so, that for the space of three moneths after that, we for foure dayes in the weeke fed upon the unsavory and mouldie Frittars, and the other three, we feasted it with Beare and Venison. But, as if it were not enough for us to want meate, we now began to want light also : all our meales proved suppers now, for little light could we see ; even the glorious Sunne (as if unwilling to behold our miseries) masking his lovely face from us, under the sable vaile of cole-blacke night. Thus, from the fourteenth of October till the third of February, we never saw the Sunne ; nor did hee, all that time, ever so much as peepe above the Horizon. But the Moone we saw at all times, day and night (when the clouds obscured her not) shining as bright as shee doth in England. The skie, 'tis true, is very much troubled with thicke and blacke weather all the Winter time, so that then we could not see the Moone, nor could discerne what point of the Compasse shee bore upon us. A kinde of daylight wee had indeed, which glimmer'd some eight houres a day unto us, in October time I meane ; for from thence, unto the first of December, even that light was shortened tenn or twelve minutes a day constantly, so that, from the 1st of December...till the twentieth, there appeared no light at all, but all was one continued night. All that wee could perceive was, that in a cleare season now and then, there appeared a little glare of white, like some show of day towards the South, but no light at all. And this continued till the first of January, by which time wee might perceive the day a little to increase. All this darksome time, no certainty could wee have when it should be day or when night : onely my selfe out of mine owne little judgement, kept the observation of it thus. First, bearing in minde the number of the Epact, I made my addition by a day supposed (though not absolutely to be known, by reason of the darkness) by which I judged of the age of the Moone ;

and this gave me my rule of the passing of the time ; so that, at the comming of the Ships into the Port, I told them the very day of the moneth, as directly as they themselves could tell mee.

“ At the beginning of this darksome, irkesome time, wee sought some meanes of preserving light amongst us ; finding therefore a piece of Sheete-lead over a seame of one of the Coolers ; that we ript off and made three Lamps of it, which maintaining with Oyle that wee found in the Coopers’ Tent, and Roape-yarne serving us in steed of Candle-weekes, wee kept them continually burning. And this was a great comfort to us in our extremity. Thus did we our best to preserve our selves ; but all this could not secure us, for wee, in our owne thoughts, accounted our selves but dead men ; and that our Tent was then our darksome dungeon, and that we did but waite our day of tryall by our judge, to know whether wee should live or dye. Our extremities being so many, made us sometimes in impatient speeches to breake forth against the causers of our miseries ; but then againe, our consciences telling us of our owne evill deservings, we tooke it either for a punishment upon us for our former wicked lives ; or else for an example of God’s mercie in our wonderfull deliverance. Humbling our selves therefore, under the mighty hand of God, wee cast downe our selves before him in prayer, two or three times a day, which course we constantly held all the time of our misery.

“ The new yeare now begun : as the dayes began to lengthen, so the cold began to strengthen ; which cold came at last to that extremitie, as that it would raise blisters in our flesh, as if wee had beene burnt with fire : and if wee touch’t iron at any time, it would sticke to our fingers like Bird-lime. Sometimes, if we went but out a doores to fetch in a little water, the cold would nip us in such sort, that it made us as sore as if wee had beene beaten in some cruell manner. All the first part of the Winter we found water under the yce, that lay upon the Bache on the Sea-shore. Which water issued out of an high Bay or Cliffe of yce, and ranne into the hollow of the Bache, there remaining with a thicke yce over it, which yce, wee at one certaine place daily digging through with pick-axes, tooke so much water as served for our drinking.

“ This continued with us untill the tenth of Januarie, and then were wee faine to make shift with snow-water, which we melted by putting hot Irons into it. And this was our drinke untill the twentieth of May following.

“ By the last of Januarie were the dayes growne to some seven or eight houres long, and then we again tooke another view of our victuals, which we now found to grow so short that it could no wayes last us above sixe weekes longer. And this bred a further feare of famine amongst us. But our recourse was in this, as in other our extremities, unto Almighty God, who had helps, wee knew, though we saw no hopes. And thus spent wee our time untill the third of Februarie. This proved a marvellous cold day ; yet a faire and cleare one ; about the middle where of all cloudes now quite dispersed, and nights sable curtaine drawne ; Aurora, with her golden face, smiled once againe upon us, at her rising out of her bed ; for now the glorious Sunne, with his glittering beames, began to guild the highest tops of the loftie mountaines. The brightnesse of the Sunne, and the whitenesse of the snow, both together was such, as that it was able to have revived even a dying spirit. But to make a new addition to our new joy, we might perceive two Beares (a shee one with her Cubbe) now comming towards our Tent ; whereupon wee straight arming our selves with our lances, issued out of the Tent to await her comming. Shee soone cast her greedy eyes upon us, and with full hopes of devouring us shee made the more haste unto us ; but with our hearty lances we gave her such a welcome as that shee fell downe, and biting the very snow for anger. Her Cubbe seeing this, by flight escaped us. The weather now was so cold, that longer wee were not able to stay abroad ; retiring therefore into our Tent, wee first warmed our selves, and then went out againe to draw the dead Beare in unto us. Wee flaid her, cut her into pieces of a stone weight or thereabouts, which served us for our dinners. And upon this Beare we fed some twenty dayes, for shee was very good flesh and better than our Venison. This onely mischance wee had with her, that upon the eating of her Liver our very skinnes peeled off ; for mine owne part, I being sicke before, by eating of that Liver, though I lost my skinne, yet recover'd I my health upon it.

Shée being spent, either wee must seeke some other meate, or else fall aboard with our roast Venison in the Caske; which we were very loath to doe for feare of famishing, if so be that it should be thus spent before the Fleete came out of England. Amidst these our feares, it pleased God to send divers Beares unto our Tent, some fortie at least as we accounted. Of which number we kill'd seven: That is to say, the second of March one; the fourth, another; and the tenth a wonderfull great Beare, sixe foote high at least. All which we flayed and roasted upon wooden spits (having no better kitchen-furniture than that, and a frying-pan we found in the Tent). They were as good savory meate as any beefe could be. Having thus gotten good store of such foode, wee kepte not our selves now to such straight allowance as before; but eate frequently two or three meales a-day, which began to increase strength and abilitie of body in us.

“By this, the cheerfull dayes so fast increased, that the several sorts of Fowles, which had all the Winter-time avoyded those quarters, began now againe to resort thither, unto their Summer-abiding. The sixteenth of March, one of our two Mastive Dogges went out of the Tent from us in the morning; but from that day to this he never more returned to us, nor could wee ever heare what was become of him. The Fowles that I before spake of, constantly use every Spring time to resort unto that Coast, being used to breede there most abundantly. Their foode is a certaine kinde of small fishes. Yearely upon the abundant comming of these Fowles, the Foxes, which had all this Winter kept their Burrows under the Rockes, began now to come abroad and seeke for their livings. For them wee set up three Trappes like Rat-trappes, and bayted them with the skinnes of these Fowles, which wee had found upon the snow, they falling there in their flight from the hill where-upon they bred towards the Sea. For this Fowle, being about the bignesse of a Ducke, hath her legs placed so close unto her rumpe, as that when they alight once upon the land, they are very hardly (if ever) able to get up againe, by reason of the misplacing of their legs and the weight of their bodies; but being in the water, they raise themselves with their pinions well enough. After wee had

made these Trappes, and set them apart one from another in the snow, we caught fiftie Foxes in them; all which wee roasted, and found very good meate of them. Then tooke wee a Beare skinne, and laying the flesh side upward wee made Springes of Whales bone, wherewith wee caught about sixty of those Fowles, about the bignesse of a pigeon.

"Thus continued wee untill the first of May, and the weather then growing warme, wee were now pretty able to goe abroad to seeke for more provision. Every day therefore abroad wee went, but nothing could we encounter withall untill the 24 of May, when espying a Bucke, wee thought to have kill'd him with our Dogge, but he was grown so fat and lazie that he could not pull downe the Deere. Seeking further out therefore, wee found abundance of Willocks egges (which is a Fowle about the bignesse of a Ducke), of which egges, though there were great store, yet wee being but two of us togethor, brought but thirty of them to the Tent that day, thinking the next day to fetch a thousand more of them; but the day proved so cold, with so much Easterly winde, that wee could not stirre out of our Tent.

"Staying at home therefore on the 25 of May, we for that day omitted our ordinary custome. Our order of late (since the faire weather) was, every day, or every second day, to goe up to the top of a mountaine, to spie if wee could discerne the water in the Sea; which, untill the day before, we had not seene. At which time, a storme of winde comming out of the Sea, brake the maine yce within the Sownd; after which, the winde comming Easterly, carried all the yce into the Sea and cleared the Sownd a great way, although not neare the shoare at first, seeing the cleare water came not neere our Tent by three miles at least¹.

"This 25 of May therefore, wee all day staying in the Tent, there came two Ships of Hull into the Sownd; who, knowing that there had been men left there the yeare before, the Master² (full of desire to know whether we

¹ This statement indicates that the tents were within the bay, but not necessarily at the bottom of it.

² The master's name was Launcelot Anderson. He wrote an account of Spitsbergen, which is in the British Museum (MS. Sloane 3986, ff. 78, 79, printed in the *Geographical Journal*, June, 1900, pp. 629-31). It briefly describes the adventures of Pellham and his companions. When the eight men were found he says they "were pale, leaned, and ill-coloured."

were alive or dead) man'd out a Shallop from the Ship; with order to row as far up the Sownd as they could, and then to hale up their Shallop, and travell overland upon the snow unto the Tent. These men, at their comming ashore, found the Shallop which we had haled from our Tent into the water, with a purpose to goe seeke some Sea-horses the next faire weather; the Shallop being then already fitted with all necessities for that enterprize. This sight brought them into a quandary; and though this encounter made them hope, yet their admiration made them doubt that it was not possible for us still to remaine alive. Taking therefore our lances out of the Boate towards the Tent they come; wee never so much as perceiving of them, for wee were all gathered together, now about to goe to prayers in the inner Tent, onely Thomas Ayers was not come in to us out of the greater Tent. The Hull men now comming neere our Tent, haled it with the usuall word of the Sea, crying 'Hey': he answered againe with 'Ho,' which sudden answer almost amazed them all, causing them to stand still halfe afraid at the matter. But we within hearing of them, joyfully came out of the Tent, all blacke as we were with the smoake, and with our clothes tattered with wearing. This uncouth sight made them further amazed at us; but, perceiving us to be the very men left there all the yeare, with joyfull hearts embracing us, and wee them againe, they came with us into our Tent. Comming thus in to us wee showed them the courtesie of the house, and gave them such victuals as we had; which was Venison roasted foure moneths before, and a Cuppe of cold water, which, for noveltie sake, they kindly accepted of us.

"Then fell we to aske them what newes? and of the state of the Land at home? and when the London Fleete would come? to all which they returned us the best answers they could. Agreeing then to leave the Tent, with them wee went to their Shallop, and so aboard the Ship, where we were welcomed after the heartiest and kindest English manner; and there we stayed our selves untill the comming of the London Fleete, which we much longed for, hoping by them to heare from our friends in England. Wee were told that they would be there the next day; but it was full

three dayes before they came, which seemed to us as tedious a three dayes as any we had yet endured, so much we now desired to heare from our friends, our wives, and children.

“The 28 of May the London Fleete came into the Port to our great comfort. A-board the Admirall we went, unto the right noble Captaine William Goodler, who is worthy to be honoured by all Sea-men for his courtesie and bounty. This is the Gentleman that is every yeare chiefe Commander of this Fleete; and right worthy he is so to be, being a very wise man, and an expert Mariner as most be in England, none dispraised. Unto this Gentleman right welcome we were, and joyfully by him received; hee giving order that we should have any thing that was in the Ship that might doe us good and increase our strength; of his owne charges giving us apparell also, to the value of twenty pounds worth. Thus, after fourteene dayes of refreshment, wee grew perfectly well all of us; whereupon the noble Captaine sent William Fakely and John Wyse (Mason’s own Apprentice), and Thomas Ayres, the Whale-Cutter, with Robert Goodfellow, unto Master Mason’s Ship, according as themselves desired. But, thinking there to be as kindly welcomed as the lost Prodigall, these poore men, after their enduring of so much misery, which through his meanes partly they had undergone,—no sooner came they aboard his ship, but he most unkindly call’d them Run-awayes with other harsh and unchristian terms, farre enough from the civility of an honest man. Noble Captaine Goodler understanding all these passages was right sorie for them, resolving to send for them againe, but that the weather proved so bad and uncertaine. I for mine owne part, remained with the Captaine still at Bottle Cove¹, according to mine owne desire; as for the rest of us that staid with him, hee perferred the Land-men to row in the Shallops for the killing of the Whales; freeing them thereby from their toylesome labour a-shoare, bettering their Meanes besides. And all these favours did this worthy Gentleman for us.

“Thus were wee well contented now to stay there till the twentieth of August, hoping then to returne into our native

¹ This is the first time Londoners are mentioned as occupying Bottle Cove alongside of the Hull men.

Country; which day of departure being come, and we embarked with joyfull hearts, we set sayle through the foaming Ocean, and though cross'd sometimes with contrary windes homeward bound, yet our proper ships at last came safely to an Anchor in the River of Thames, to our great joy and comfort and the Merchants benefite. And thus by the blessing of God came wee all eight of us well home, safe and sound; where the Worshipfull Companie our Masters, the Muscovie Merchants, have since dealt wonderfully well by us. For all which most mercifull Preservation, and most wonderfully powerfull Deliverance, all honour, praise, and glory be unto the great God, the sole Author of it."

CHAPTER XIV.

THE CULMINATION OF THE BAY FISHERY.

IT was characteristic of the energy and determination of the men of Hull that their ships were the first to arrive at Bell Sound in 1631 and relieve the London whalers. Notwithstanding that they had been driven away empty by the London ships in 1630 they were not afraid to meet them next season and hand over the surviving winterers to them. Probably the protest of the Scotch Lord Chancellor had produced an effect. On May 25, 1631, we find the Privy Council again devoting its attention to the interminable dispute¹. They had before them a series of charges brought by Nathaniel Wright against the London Company, and the Company's reply thereto. Wright says that the Company "have gotten an ill name and that the Soape makers did behinde their backs curse them for exactinge upon them in the price of their oyles and that in a yeare wherein God had blessed their voyage with an extraordinarie fishinge." The Company reply that when the ships came in they lowered the price of oil from £26 to £20 per ton, prices at Rouen and Amsterdam being £28 and £22 respectively. Wright further charges them with exaction in the price of whalebone, "who made themselves sellers and buyers when they sett up a candle to sell them by." The reply is that at the auction the Company were faced by an organized knock-out and so they bought their stuff in. The last charge is that the Company do not send up as many ships to Spitsbergen as they should, the Dutch sending yearly 4,000 tons, the London Company only half as much. The Company answer that when Wright was

¹ *State Papers, Domestic*, Charles I, Vol. 192 (May, 1631), No. 36.

"husband of the Company, having a stock of £20,000 underwritten...the managing of the whole voyage being referred to him" he only sent 2,200 tons from London and Hull together. "Yet is not ashamed to tax the Company for not doing that which while hee was one of the Adventurers hee thought not fitt to be done." This year the Company say that they have sent 14 ships and a pinnace (nearly 3000 tons). After hearing both parties the Council ordered Wright and Horth to enter into a bond not to send ships to Spitsbergen. To Iceland and elsewhere they might send.

Nevertheless Wright and Horth sent their ships to Spitsbergen as usual, and "consorted with strangers as partners and sharers, thereby giving away, as much as in them lies, an interest in that country, which at its discovery was named King James Newland¹." In consequence Wright and Hoarth were criminally proceeded against (Nov. 4th). Hoarth was to be kept in custody and pay his bond, whilst Wright was committed to the Fleet prison.

We have been led away by the course of our narrative and have omitted mention of the doings of the Danes. In 1630 Johann Braem of Copenhagen obtained a new charter from Christian IV, giving him the right to send six ships to fish at Fairhaven, two of them being Basques. This time Braem took into partnership Jean Vrolicq, a sea-captain described by the Dutch as "estant encore jeune d'ans et de basse condition," who had already applied to the King of France for a Spitsbergen "octroi," or monopoly. In 1631, accordingly, Braem sent one ship to Fairhaven, and Vrolicq followed with another. They found their place taken at Smeerenburg, and no one eager for their company, so they moved away and began to fish in Robbe Bay, named Port St Pierre by Vrolicq (modern Norsk, Kobbe Bay), in the west side of the island, which was known thenceforward as Danes Island. The Dutch commander ordered Vrolicq not to fish, but Braem cleared his ship for action, and the protest was not enforced. Vrolicq returned to Havre de Grace in high feather, declaring that the Dutch had recognized his French commission, which

¹ *State Papers, Domestic*, Charles I, Vol. 202 (Oct. 1631), No. 7.

was not true. He accordingly dissolved partnership with Braem, who took in two new Biscay partners, whilst Vrolicq prepared to go again next year under the sole patronage of the King of France and Cardinal Richelieu. In 1632 Braem appeared at Robbe Bay with one Danish ship and accompanied by two ships of St Jean de Luz as partners. Vrolicq also arrived with two ships.

The Dutch Commander J. J. Duykerker promptly compelled Braem's Biscayers, the *Pigeon Blanc* and the *Ste Marie*, to depart. They sailed away and waited till the Dutch had returned home, when, going to Jan Mayen Island at the end of August, "they landed and took, pillaged, and stole a very great quantity of train-oil, many thousands of pieces of whalebone, and other utensils; also broke up the huts and stone houses, ruined many utensils, destroyed a number of shallops, which they set adrift in the sea, and in fine ravaged and damaged the Dutch Company, whose merchandise and equipment had been left there as in their own warehouse, where up till then they had experienced no such ill-treatment. The Biscayers filled their ships with the plunder, carried it off to France, and sold it at Rouen and elsewhere¹."

Vrolicq was likewise ordered away by the Dutch, and, no longer having Braem's support, was obliged to depart. He went to Iceland and fished there. His negotiations with the Dutch went on all the winter, the French Government strongly supporting his right to take part in the Spitsbergen whaling industry. The Dutch Council eventually recommended the Noordsche Company to let him fish outside the limits of their fishery, which were now defined to be bounded on the south by the south cape of Magdalena Bay, and on the north by "de noorder punt ofte noorder gatt"—the north point or the north gat². We shall hear more of Vrolicq next year.

The Dutch did not interfere with the Danes, who planted themselves securely in Robbe Bay and built themselves huts. To complete what remains to be said about the Danes we must again depart from the chronological order

¹ Muller, *N. Co.* pp. 406-413.

² Le Moine de l'Espine and Isaac Le Long, *De Koophandel van Amsterdam*, 10th edn. Vol. II. pp. 283-309. Amsterdam, 1801-2, 8vo.

of our history. In or just after 1633 the rapid increase in the number of Dutch ships coming to Smeerenburg caused a new grievance. The Danes complained that they were incommoded in their fishing by the throng of the Dutch. Christian IV took the matter up in 1637, and wrote to the States General that too many ships went to Fairhaven. The Noordsche Company replied that it was true, but that the fault was not theirs, but that of unauthorized whalers who came up in spite of their monopoly. In 1638, accordingly, three Danish men-of-war were sent to the north to reassert the king's claims. In open sea they met two of the company's ships, and imposed trifling fines upon them. Following them presently to the Foreland, where they anchored, they arrested them and kept them idle for a month, only at last releasing them on the demand of other of the Dutch Company's ships. Thereupon the old negotiations revived, discussions as to the ownership of Spitsbergen, as to its being part of Greenland, and so forth. The matter dragged on till 1642, when the company's monopoly came to an end, and the Dutch threw the fishery open to all Dutch citizens. The king proposed that the number of ships should be limited; the Dutch replied that this was impossible now that the monopoly was ending. Finally the king agreed to the freedom of fishing. Nothing more was heard of Denmark's sovereign rights after this, for the very good reason that the whales presently abandoned the coasts and bays of Spitsbergen, which thenceforward became valueless as a whaling base.

We return to the events of 1632. Smeerenburg and the equipment stored there had, by this time, grown to represent a large capital for that period, and the Noordsche Company obviously could not afford to allow such interests as theirs in Spitsbergen to be trifled with. Moreover, they had three large warehouses, "*Groenlandsche Pakhuizen*," at Amsterdam, on the west side of the Keizersgracht near its north end, between the Brouwersgracht and the Prinsenstraat¹. These warehouses contained large accommodation

¹ The land on which they were built was bought in 1620, the probable date of the building (Muller, p. 121, note). After the expiration of the Noordsche Company's monopoly, and the abandonment of Smeerenburg and Jan Mayen as settlements, these warehouses were the only immovable property of the Amsterdam adventurers.



GROENLANDSCHE-PAKHUIZEN.

In the Keizersgracht, Amsterdam, from a print after a drawing by Wencke,
published by 'Het Zondagsblad van het Nieuws van den Dag,' no. 1905.

for the necessary equipment of the fishery and for merchandise. There were great stone-cisterns in cellars for storing the train-oil, which was "better preserved there and less subject to leakage than in vats¹."

The Groenlandsche Pakhuizen at Amsterdam still stand in good preservation with a noble tree before them and the canal (Keizers Gracht) beyond. There are three of them, one like another externally. They stand in a row some six doors south of the Church of St Ignatius. Their brown bricks have grown browner with age, but the well-built walls are firm. Now they are common warehouses, but they retain their old name, and I am told that down in the basement there are still evidences of their old use—vats and what-not—but these I could not see when I was there and could not wait to see later.

At Jan Mayen Island they had other "tents," warehouses, and equipment similar to those at Smeerenburg, so that their venture was a very large one. We can easily imagine the horror with which they heard of the destruction and robbery perpetrated upon their property at Jan Mayen in 1632 by the angry Basques, who had been refused permission to fish off Smeerenburg. The matter, we may be sure, was seriously debated in the general assemblage of the "kamers" of the Noordsche Company. What should they do? The amount of their loss was as yet unknown, but it was certainly heavy. The thieves were selling their spoil at Rouen and elsewhere. What they had done with impunity at Jan Mayen, they might do again at Smeerenburg, and there was practically no redress to be had. They would protest, of course, and the States-General would back their claim for compensation. Richelieu would be appealed to, and plenty of ink would be spilt, but money would not be forthcoming. The English had never paid for their extortions, and they themselves had never paid and did not intend to pay any of the claims made against them by foreigners. What was past was past; the question now was how to protect themselves in future. Perhaps some wise reformer, a quarter of a century before his day,

¹ Le Moine de l'Espine and Isaac Le Long, *De Koophandel van Amsterdam*, 10th edit., Vol. II. pp. 283-309. Amsterdam, 1801-2, 8vo.

expressed a doubt whether these buildings, storehouses, and cookeries were not altogether a mistake. They should bring their blubber home in barrels, and boil it down in the Netherlands; they would thus be saved all the great capital expenses in the unprotected north, which swallowed up much of their profits. If such considerations were put forward by someone, the majority were of another way of thinking. They were committed to the policy of a private Dutch settlement and a great Smeerenburg. Money had been spent upon it, and if more were needed, more must be forthcoming. They had gone too far to turn back without ruin. Smeerenburg had a great future, and would well repay them. Who could say what it might grow to in a century or two? It might become the capital of a Dutch arctic colony, with a monopoly of the whole whale-fishery. The real solution of their troubles was to be found only in colonization.

Colonization, as we have seen, was no new proposal. The English had endeavoured to effect it, but failed. Since then, however, the eight English sailors had lived through an arctic winter and Pellham's account of their exploit had been published (1631) and doubtless widely read in Holland, where so many people took an interest in arctic adventure. What the English could do, it would fairly be argued, Dutch men could do. Let seven men be left next winter at Jan Mayen and another seven at Smeerenburg. The men would be forthcoming, if they were well paid. They could man the forts, and drive away any pirates who might attempt to land. The plan was approved, men were found ready to venture their lives for its execution, and all the needful preparations were made. The prospective winterers went up with the whaling fleet in the spring of 1633.

The season of 1633 seems to have been a good one. The Dutch had a little trouble with Vrolicq again, who once more appeared at Robbe Bay. Commander Cornelis Pz. Ys sent for him to come and see him at Smeerenburg, and there ordered him to take himself outside the Dutch limits. Vrolicq suggested that English Bay (or South Gat) in Fairhaven would suit him, but Ys said that that was used by the Dutch. Vrolicq then suggested Magdalena Bay,

which was likewise refused¹. Accordingly Vrolicq decided to take possession of a little bay, wholly omitted on all modern charts (except the French local chart of Magdalena Bay), that lies between Magdalena and Hamburger Bays. He named it Port Louis, or Le Refuge Français; others generally called it Baskes Bay. It proved to be an excellent fishing station. Having established himself there, Vrolicq made raids into Magdalena Bay, where the Dutch captured five of his shallops at one time or another before they persuaded him to desist. In the winter of 1633-4 negotiations took place between the Dutch and French governments, wherein memoirs were put forward on behalf of the disputing parties. The Dutch memoir was accompanied by Middelhoven's map, which is preserved in the Royal Archives of the Hague, where I traced it². A contemporary map based upon Vrolicq's information is now the property of Mr Cash, of Edinburgh. In 1634 Vrolicq was again at Port Louis. Dutch opposition, however, ultimately ruined him. He obtained, indeed, letters of reprisal against the Dutch but could make no use of them because of the league at that time existing between Dutch and French³.

The Noordsche Company's charter did not expire till the end of 1634. Taking time by the forelock they applied for a renewal of it in the autumn of 1633. Many Dutchmen did not think the monopoly should be renewed but that the fishery should now be thrown open to all Dutch ships. When the Frieslanders saw that this was not to be, and found themselves still excluded from the company,

¹ The South Gat and Magdalena Bay had both been English stations, but were abandoned by the English, as we have seen, about 1624 or 1625.

² Middelhoven's map is accompanied by an affidavit sworn to by the following Dutch "seafaring pilots," all of whom were doubtless Spitsbergen skippers: Pieter Cornelisz. aged 69, Henrick Cornelisz. Pailart, aged 53, Christian Cornelisz., aged 37, Jacob Tennisz., aged 36, and Lucas Bouwensz., aged 33 or thereabouts. These men deposed that they "had seen and measured this chart in all its points and parts, lengths and heights" and that "they found it to correspond in all respects with the aforesaid land of Spitsbergen, its havens or bays." And in particular "that from Vogelhouck northwards the land does not extend further than 14 or 15 German miles." The map is signed "*Michiel Harmanisz. Middelhoven fecit*," and Middelhoven states upon it that he employed "David Davitsz., teacher of navigation at Rotterdam, to make the same with great accuracy according to the best authorities."

³ See document printed by Dr E. T. Hamy, in *Bull. de géog. hist. et descript.* Paris, 1901; p. 35, note.

they obtained a charter from the States of Friesland, and ships of Harlingen and Stavoren went to the fishery under this charter. We shall see that the Frieslanders were allowed two years later to combine with the Noordsche Company¹. It may be mentioned that the leader of the Stavoren adventurers was Wybe Jansz, after whom Wybe Jans Water was named, an indication that the Frieslanders were energetic in the eastward fishery. Till they entered the Noordsche Company the eastward region and the open sea were perhaps the only fishing areas open to them.

In the Noordsche Company's application for a new charter they recited how "for the maintenance and service of the whaling industry and fishery they had built at great cost forts, houses, and warehouses for dwelling and protection, so as to put the fact of their possession beyond reach of question; and how the more certainly to maintain the same against all foreign nations and others, they had especially and extraordinarily at great expense fitted out some ships with men and all things needful and had left them to dwell and overwinter in Spitsbergen and Mauritius (Jan Mayen) Island, in order to keep a continuous occupation of those places." The States General granted a new charter for eight years, dated October 25, 1633.

The eight years were to be counted from the beginning of 1635, so that the monopoly lasted till the end of the season of 1642. It then expired and was not renewed.

We are not here concerned with the fortunes or misfortunes of the Jan Mayen winterers. They all died, leaving behind them a pathetic journal, which was published in Dutch and republished in English more than once². The winterers at Smeerenburg were more energetically and wisely led by their able captain, Jacob Sēgersz. Vander Brugge, who wrote a most interesting journal, the only book ever written at Smeerenburg in its great days. Vander

¹ See Zorgdrager, German edn. pp. 217-224.

² "Twee Journalen, Het Eerste gehouden by de Seven Matroosen, Op het Eylandt Mauritius, in Groenlandt, In den Jare 1633 en 1634 in haer Overwinteren, doch sijn al t'samen gestorven: En het tweede gehouden by de Seven Matroosen, die op Spitsbergen Zijn Overwintert, en aldaer ghestorven, in den Jare 1634" [*i.e.* in 1634-5; the second lot of Smeerenburg winterers]. Amsterdam (Saeghman) s.d. (1635). 4to.

English translations of this book are printed in Churchill's *Collection of Voyages*, Vol. II., and in Pinkerton's *Collection*, Vol. I.

Brugge's journal was likewise printed in Dutch, and passed through several editions¹.

On August 30, 1633, the whaling fleet, after taking an honourable farewell of the winterers, sailed out of the North Bay and passed the West Bay the same night. Vander Brugge and his six comrades, left alone, began by making good resolutions to collect all the fresh food they could, to do their duty, and to sing a psalm and pray morning and evening before their meals. The very next day they made a boat expedition to Zealand Bay, and climbed high up a hill on the mainland near Alabaster Hook² (a name not mentioned elsewhere) to survey the sea, which was covered with ice. They slept in a tent made of oars and a sail, then sailed past Monier Bay, lost themselves in fog and storm, and returned tired out to Smeerenburg on September 2. The same day they made a plan that, in the event of Biscay or other ships appearing in the bay, they would light fires in all the "tents" to deceive them, and make smoke rise from all the chimneys, fly their flags, fire some shots from the fort, and make a loud noise, being also careful to observe to what nation the ships belonged. They also arranged to keep watch day and night. Except in utterly bad weather, they kept busy. One day they rowed into West Bay; another they prepared to try and kill a whale, their idea being to fasten the harpoon-line of 70 or 80 fathoms to a couple of casks and throw them overboard when they had struck a fish. The arrangement when

¹ "Journal of Dagh-Register, gehouden by Seven Matroosen, In haer Overwinteren op Spitsbergen in Maurits-bay, Gelegen in Groenlandt, t'zedert het vertreck van de Visschery-Schepen de Geoctroyeerde Noordtsche Compagnie, in Nederlandt, zijnde den 30. Augusty, 1633 tot de wederkomst der voorsz. Schepen, den 27. May, Anno 1634. Beschreven door den Bevelhebber Jacob Segersz. van der Brugge." Amsterdam (Saeghman) s.d. (1634). 4to. *Vide* Tiele's bibliographical *Mémoire*, p. 277. An English translation of this journal is included in the present writer's *Spitsbergen* volume, published by the Hakluyt Society.

This book and that mentioned in the previous note seem to have been confused together, even by their publisher, for he published a second edition of Vander Brugge's journal with a wrong title beginning "Twee Journalen, yeder gehouden," etc., an evident blunder arising out of confusion with the other book. Vander Brugge's book did not contain (even in this later edition) "twee Journalen," but only one. Copies of both these editions are in the British Museum Library, where I have compared them (10460 bbb 10 and 13).

² Probably it was from this place that the rock was fetched which, as Zorgdrager relates, was employed in the Delft porcelain works (German edit., p. 90).

tried was a failure, for the casks dragged the harpoon out. They also fished up old whalebone from shallow places near the shore. On different occasions they made expeditions to search for scurvy grass, and found it in considerable quantities at three places, which they named the Salaet Hills, all on Amsterdam Island. They spread the scurvy grass out in one of the "tents." They also made a journey to Red Beach to kill reindeer, and hung the meat up on pegs to freeze in the same "tent." They killed birds also, and preserved them in the same manner. One day they found a dead whale near the Archipelago, and made tremendous efforts to secure it, but a storm drove it out to sea, after they had towed it for twelve hours. They kept a careful look-out for whales, it being doubtless their duty to observe whether winter whaling would pay. Once a whale got aground just off the settlement, but he worked himself off again. At the beginning of October they observed the departure of the birds. Great cold came on about the middle of the month. On the 15th they climbed "the hill" and caught a last glimpse of the sun. About a fortnight later the first bears were seen, and the last whales soon after. Now a series of bear-fights came on, which kept them busy on and off all the winter. They must have collected a valuable quantity of skins. Once or twice they had narrow escapes. They were struck with wonder sometimes by the northern lights, but say less about them than might be expected. They trapped and shot many foxes, and found their flesh good, especially when boiled with plums and raisins. On March 7 they launched their boat once more and killed a walrus. On May 1 they celebrated the Spitsbergen carnival. The ducks began to return about that time. They became busier now every day, killing bears, walruses, seals, and birds¹. At last, on May 27, a shallop came in, sent by the commander from his ship off Robbe Bay. He came into the West Bay himself next day, and five more ships soon followed. The seven winterers were all found in excellent health. They had kept busy and fed themselves well with fresh meat during the nine months and five days of their lonely exile. Lacking the knowledge that has deprived an

¹ In all they killed and did not lose 29 bears during the winter.

arctic winter of its terrors, they were surrounded every day by the terrors of the unknown ; but, being brave and active men with a good leader, they never lost heart, and never gave way to poisonous idleness. Hence their safety.

After the renewal of the Noordsche Company's privilege in 1633 there was a great increase in the number of Dutch ships sailing to the fishery. The London Company foresaw that this would be the case. In April, 1634, they informed the Privy Council that they were likely to be opposed by more foreign ships than ever. They themselves were intending "in lyke manner to goe this yeare extraordinarily strong," they therefore begged for effective protection against English interlopers. The Star Chamber might prohibit ; they might put Wright and Hoarth in prison, but Edwards managed to get English ships to sail for him in spite of everything. There were Yarmouth ships at the fishery in 1633 and again in 1634. In the latter year Hoarth's ships, the *Mayflower* and the *James*, commanded by William Cave and Thomas Wilkinson, took possession of the cove in the south side of Horn Sound, called Bowles Bay by the English, Goeshaven by the Dutch, which was the London Company's regular station. Captain Goodlad came up as usual in command of the London fleet and distributed his ships to their several harbours, himself settling at Port Nick in Ice Sound. About the 7th of July he heard of the Yarmouth ships at Horn Sound, how they had "pit up their tents and kept their shallops with the Companie's to look out for whales and put them by from many whales which they might have killed, tending to over throwe their voyadge if he did not take some order therein." Goodlad accordingly went to Bowles Bay with his two "shipps of warr," but could not get into the bay because they drew too much water. So he landed and went along the shore "with some of his cheife men to the Yarmouth shipps, demaunding of William Cave and Wilkinson and one Seaman, the Principall commanders of the said Yarmouth shipps, by what authority" they were there. They showed Edwards' Scotch patent "with all using ill language towards Captain Goodlad, saying they expected as much favor from him as from a Turk or Jew." Goodlad accordingly ordered them to depart and they refused, "and would maynteyne

the harbor with their blood and did sleight the order of the board as a piece of paper.

“Whereupon Captain Goodlad would have haled up their coppers but was resisted by Cave, Seaman, and others, and himsele like to have bin spoyled with the boyling oyle. Soe finding this ill usage at their hands, within fower houres after, brought diverse of his men to recover the harbour from them. But first sent five of his cheife men to know their resolucon, whoe could receave no other answer from them but blood; and Cave called Captain Goodlad theife, whereas he came with the King's Commission as a true man, and with order from the board and the Commission of the Companie. And Cave having eighty men in armes attending him hee commanded them to fight or loose their wages. Hee alsoe placed aboard his shipp within Pistoll shott of Captain Goodlad and his Company fyve peeces of great Ordnance, charged with burr shott and small bulletts, and twenty men to discharge them (upon a watchword or token, and retreate of Cave and his men behinde their coppers) at Captain Goodlad and his companie, which if it had taken effect would in all likelyhood have spoyled above one hundred men, but it pleased God they were prevented by the misty weather.

“Afterwards one of their men falling downe with a shott from our men, the busines was composed by Captaine Goodlad to avoid further shedding the blood of our countrey men (although he was provoked beyond measure) and sending his Chirurgion a board of Cave's shipp to dresse the man that was hurt, they confessed to the Chirurgion Cave's cruell intent and shewed him the burr shot. They alsoe confessed that 3 men with musketts were sett to kill Captaine Goodlad, and one of them levelled fyve tymes at him, but the peece would not take fire, and Captaine Goodlad was forced to close with him and take away his muskett. Cave's brother alsoe confessed that he did discharge his muskett 4 tymes before Captaine Goodlad came to them, and every tyme hitt the marke, but presenting his peece fyve tymes at him it would not take fire, but after the busines ended, turning his backe, with the first touch of the match it went off and hitt the marke, which he told to the Chirurgion.....



"By these proceedings it may appear how bold Hoarth of Yarmouth is against the authority which our Companie have under the great seale of England¹," etc.

Horth and the other Yarmouth men were ordered to appear before the Privy Council.

The Yarmouth men said that Goodlad "shot off his owne Pistoll first and then commanded his men to doe the like, whereupon they shott off their Musketts (haveing no manner of opposition) and kild many of those men, which went forth under the Scottish Commission. Amongst the men that was then slain Richard Collidg was then and there most Barbourously and Cruelly Murthered²." Edwards and the men employed by him petitioned the Privy Council of Scotland for protection. They took up the case and by a letter to the King "recommended the trial of those grievances and that recompense be made to the petitioner and that he and his servants for the time to come may peaceably continue their trade³."

The question was referred to a Committee composed of notable men of both nations, who advised a compromise, and that the rival companies should amalgamate.

The man who came off worst in this business, after Richard Colledg who was killed, was his brother Thomas. Naturally anxious to avenge Richard's death he procured a warrant from the Lord High Marshal, the Earl of Arundel, for the arrest of Goodlad. In company with a "pursivant" he proceeded to arrest him. Thereupon Archbishop Laud sent for the prisoner Goodlad, for the "pursivant," and for Thomas Colledg. He discharged Goodlad but committed the "pursivant" and Colledg to the Fleet Prison. This apparently high-handed action, the reasons for which are not given, was afterwards raked up against Laud, when he was on his trial. It appears that in 1643 Colledg was still in prison in spite of application made to Parliament, on his behalf in 1640, when Mr Pym was ordered to investigate the case and heard several witnesses to the facts⁴.

¹ *State Papers, Domestic*, Charles I, Vol. 275 (Oct. 1634), No. 30.

² *State Papers, Domestic*, Charles I, Vol. 499 (1643), No. 47.

³ *Calendar of State Papers, Domestic*, 1634-35, p. 461.

⁴ *State Papers, Domestic*, Charles I, Vol. 499 (1643), No. 47.



An unexpected action of the Government in 1634 gave the Muscovy Company's Directors a horrible fright. When they were least expecting it, the proprietors of a soap-patent procured a proclamation from the King forbidding the use in soap-making of any oil except olive and rape. The whaling company immediately protested. They pointed out that such a regulation meant utter ruin to them. "This voyage hath yearlie brought home 1,100 tunne of oyle, as by the medium of the last eight yeares, of which there never was 50 tunne in anie one yeare sold for other use than soape making¹...The rest of their retourne is whale-bones and seahorse teeth." They add some further interesting particulars. The average tonnage annually employed by the company was 2,500²; the number of mariners 1,000, "whereof 500 are bred of landsmen" and so turned into sailors. The yearly charge of the voyage was £12,000. It had cost the company £40,000 to uphold their trade against the Dutch. If the company did not send their ships up this year the Dutch might take away or destroy their coppers, vessels, and provisions left there³. The company appear to have got satisfaction, and their ships went up in 1635 as usual.

In the winter of 1634-35, while these debates were going on at home, the frost-bound harbour of Smeerenburg was the scene of a grim tragedy. The fact that, in the preceding winter, the Jan Mayen winterers had died, whilst those in Spitsbergen like the English in 1630 had survived, not unnaturally led men to conclude that the latter country had a healthier winter climate. The men's safety was referred to that, instead of to their activity and the wisdom of their leaders.

Plenty of volunteers were forthcoming to spend the next winter (1634-35) at Smeerenburg, but apparently none for Jan Mayen. On September 11, 1634, the selected seven winterers were left behind in the "tent" of Middeldburg, and the whaling fleet sailed for home. The men appear to have had little initiative. They did not go to

¹ But Martens (in 1671) states that "the train-oyle of the whale is used by several, viz. by the frize-makers, curriers, cloth-workers, and soap-boilers, but the greatest use that is made of it is to burn it in lamps instead of other oyle."

² They say 25,000, but this is an obvious slip of the pen.

³ *State Papers, Domestic*, Charles I, Vol. 279, Nos. 71, 72, 74.

hunt for reindeer, and they could find no scurvy grass. By November 24 scurvy appeared amongst them, and all they could do was to comfort "one another with hopes that God would provide for them something or other for their Refreshment." They fell back upon physic. On December 24 they wounded a bear, but were too weak to kill it. From that day all were doomed men. The first died on January 14, and two more in the next few days. The survivors saw the sun again on February 24. On the 26th they wrote their last record: "Four of us that are still alive lie flat upon the Ground in our Hutts (*i.e.* bunks). We believe we could still feed, were there but one among us that could stir out of his Hutt to get us some Fewel, but no Body is able to stir for Pain. We spend our time in constant Prayers to implore God's Mercy to deliver us out of this misery, being ready whenever He pleases to call on us."

All were found dead when the ships arrived next summer. A baker was the first man ashore. He broke open the back door of the tent which the men had inhabited and "running upstairs found there, upon the floor, part of a dead dog...and another at the stair foot in the Buttry. From hence passing through another door towards the fore-door, in order to open it, he stumbled in the darkness over the dead bodies of the men, whom they saw (after the door was opened) altogether in the same place, 3 in coffins," two in cabins or bunks, and two lying on sails on the floor. They were buried, perhaps on Deadman Island, the usual burying-place. Twenty years later their bodies were seen, still in perfect preservation¹.

In 1878 a Dutch frigate, sent on a voyage of Arctic research, landed at Smeerenburg and set up a monument to these winterers. It does not stand on Deadman Island, which was so named, as Martens gruesomely says, "because the dead are buried there in this fashion: the dead are laid in a coffin and well covered over with great rocks. Afterwards the white bears find them and devour them." There were burial-places on Amsterdam Island too. Buchan's party in 1818 counted 1,000 graves on the site. It is at

¹ M. Blaeu, *Atlas Historique*. Vide Churchill, Vol. II. p. 427; Scoresby, Vol. II. p. 51. Anderson's *Commerce, sub ann.* 1634.

Smeerenburg itself that Beynen and his companions set up the Dutch memorial. No apology is needed for quoting at length the following account of its dedication.

“As soon as the vessel was safely at anchor, men and officers landed, to visit Smeerenburg. How few traces were to be found of the busy days of old! How lifeless and forsaken was the place that, for so many years, had been frequented by hundreds of cheerful workers...The former localities of the seven ‘Chambers’ of the Netherlands—Amsterdam, Rotterdam, Middelburg, Flushing, Enkhuizen, Delft, and Hoorn—were easily distinguished by the remains of circular walls on which the oil-boiler had rested. One must imagine a plain, white with snow, which has melted at the water’s edge, where the ground is strewn with broken red tiles and rubbish, enormous bones of whales, oars, half-rotten rope, and here and there a grave: and one has a true but not an enchanting idea of what remains of a place once so much frequented by our ships. The burial-place, at the northern end of the beach, had, if possible, a still more melancholy look, the crosses fallen, skulls and bones scattered about. With difficulty some of the inscriptions on the crosses were made out, and were as follows:

Here lies buried Jan Fred Meyrot van
Pruysen, who rests in the Lord, the 19th
July, of the ship *Evenwicht*,
Commander Cornelis Dek, 1778.

Here lies buried Uurjaen Klaesz. Kromen
van Son.

Here lies buried Hendrijk. Selden van
Gestack, died in the ship *Frouw Anne*,
Commander Derk Driewes, 1742.”

The coffins were nailed down and the crosses replaced. On the following day a cairn was built on the highest spot among the graves, against which was placed one of the stones brought from the fatherland. The following inscription is engraved upon it.



In Memoriam
Spitsbergen, or Newland,
Discovered
in 79° 30' N. Latitude
by the Hollanders.

Here wintered, 1633-34,
Jacob Seegersz. and Six Others.

Here wintered and died, 1634-35,
Andries Jansz. of Middelburg
and
Six Others.

Late in the evening, before midnight, the whole crew paid a last visit to the spot, and the commander took the opportunity of addressing the following few words to them :

“Men! by the placing of this stone we have fulfilled the wish of Holland, which was to set it up as a token of the great honour in which she holds the memory of the brave deeds and adventurous spirit of our dauntless seafathers. For centuries their ashes have reposed here. As we look round we see that but little remains of many of their graves. But the honour in which we hold the memory of those men will never fade away, as long as the flag of Holland proudly flies in all seas. For in days gone by they did much for the honour and prosperity of our dear country.’

“It was a strange sight to behold these fourteen sturdy seamen standing at the burial-place of Dutch sailors long passed away on this distant shore, and fulfilling a work of love!”

CHAPTER XV.

SMEERENBURG'S CULMINATION.

THE season of 1635 was uneventful. The London Company now had to apply for exemption of their sailors from impressment. There were 260 of them this year and they were duly let off. The landsmen, coopers, and other servants are not included in these 260. At Smeerenburg the throng of ships increased. All available space on the flat ground was occupied. There was room for no more ships to range themselves along the shore, and for no more huts to be built in convenient situations. Hence when, in 1636, the whalers of Harlingen and Stavoren were allowed to join the Noordsche Company¹, it was stipulated that they should find some other place for their cookery.

They accordingly chose a site on Danes Island, over against Deadman Island, and there they erected their cookery. It was called the cookery of Harlingen². It occupied almost exactly the position where Mr Arnold Pike built the hut in which he wintered, and where the unfortunate Andrée erected his balloon. This marked the culmination of Smeerenburg's prosperity. Zorgdrager states that the ships that came up for the fishery did not suffice to carry away the train-oil made in a season, but that extra ships had to be sent to carry it home. He says that this was an annual custom which lasted on even after "the times of the Company," that is to say, after 1642.

¹ From this agreement we learn that the shares in the Company were divided between Holland, Zeeland, and Friesland holders in the proportion of 6 : 2 : 1. It was signed by representatives of the Chambers in the order of seniority and importance thus:—Amsterdam, Delft, Rotterdam, Hoorn, Enkhuizen, Middelburg, Flushing (Zeeland), and Harlingen (Friesland).

² Martens refers to it by this name, which his English translator gratuitously altered into Cookery of Haarlem. The mistake is not rectified in the Hakluyt Society's edition.

We hear casually of Danes at Spitsbergen in this year. The only fact recorded about them is that they neglected the fishery and devoted their energies to searching for gold and silver¹.

Fourteen French ships went to the fishery in 1636. How many of them made Spitsbergen their station is not recorded. It is probable that the Biscay whalers already devoted chief attention to the open sea fishery, which was always free to everyone, and in which they were the earliest experts. As we have seen they used to boil down their oil on board ship, a method adopted from them and carried out down to our own day by the whalers of Nantucket. By this time, no doubt, there were Dutch ships engaged in the open sea fishery, though we hear little about them. It is recorded that, as early as 1626, two Zaandam whalers, *en route* for Nassau Straits, were the first Dutch who ever killed a whale in the open sea². Other Dutch whalers, excluded from Smeerenburg, were doubtless not slow to follow this example.

In the autumn of 1636 the French Biscayers received a blow, from which they did not soon recover, when the Spaniards sacked St Jean de Luz, Cibourre, and Soccoa, and captured 14 great ships, recently come in from the north "*chargés de fanons et de lard.*" A few French ships apparently went up next year, but in 1639 no French ships appeared in Spitsbergen, nor are they heard of there again during the continuance of the bay fishery. It does not, however, follow that none went up. Perhaps they found it more profitable to prey upon returning Dutch and English whalers, for we frequently find references henceforward to Biscay and Dunkerque privateers, who were a standing nuisance in the north to a much later date³.

We have little information about the year 1637. We only know that Horth sent ships to Spitsbergen at a charge of more than £600 a month. We find him in dispute with his employer Edwards, and contracting with the "Sopers of Westminster," a new manufacturing company, to supply them with oil, which the Privy Council forbids him to do.

¹ Scoresby, *Arctic Regions*, II. p. 167.

² Wassenaer, *Hist. verh.* XI. fol. 134.

³ Scoresby, *Arctic Regions*, II. 165.

He claims that the Sopers cannot get oil except from Holland. The reply is that the London Company has more oil in stock than they can sell. The price had sunk to £16 per ton, so that the whaling fleets must have been very successful at this time¹.

The "Sopers of Westminster" were a corporation, "being most part of them Popish Recusants," to whom a patent and monopoly was granted by the King in 1631 for the making of a white soap by what the London soap-makers described as a "pretended new" process. From the moment of their coming into existence they were at loggerheads with the London soap-makers. In 1632 they obtained a royal proclamation to the effect that "no oyle bee used in soape but olive and rape oyle." This put the London men out of business and was a severe blow to the Whaling Company. Protests and law-suits followed, as already stated. In 1634 we find the Westminster soapers using train-oil in their manufacture. After 1637 the new company appears to have been bought out by the London men, who had been practically kept out of business from 1632 to 1637, "The Greenland (Spitsbergen) trade and all fishing trades having been most extreemely interrupted and damnified by this Project²."

The only information we possess about the year 1638 has been already mentioned above, that in this year the King of Denmark sent three men-of-war to Spitsbergen to assert his sovereign rights. It is probable that in one of these ships the Spanish naturalist Leonin was a passenger. He was sent up about this time by the Grand Marshal of Denmark to bring back a description of the country, which was published in 1647 by Isaac de la Peyrère in his well-known *Relation du Groenlande*³. Leonin's observations are not of much interest now. The Danish ships brought home some birdskins, which were afterwards stuffed, and some polar bears alive. The Grand Marshal kept these bears at Copenhagen, and used to have them thrown into the water that he might see them dive and swim. Poor Leonin

¹ *Calendar of State Papers, Domestic*, 1637, pp. 29, 30, 288.

² *A short and true Relation concerning the Soap-busines*. London, 1641, 4to.

³ Translated in A. White's *Spitsbergen and Greenland* (Hakluyt Society), London, 1855, 8vo, pp. 233-236.

"returned from this Voyage so cramp'd with cold that he lived not long after."

A significant fact recorded in 1639 is that two Amsterdam ships belonging to the Noordsche Company fished in the open sea between Spitsbergen and the North Cape¹. Of the English whalers we hear nothing, but we find the merchants of York and Hull petitioning to be allowed to open a soap factory at York, such as there once was, which used great quantities of whale-oil. They now suffer from the want of vent for oils brought to Hull from Spitsbergen. After negotiations the London soap-monopolists agreed to open a factory at York and to buy the Hull oil, paying ten shillings less for it per ton than the current price in London². By what impediments industry was hampered in those days! Such conditions as are thus revealed amply account for the growing reaction against monopolies.

The only account we possess of a season's work at Smeerenburg in its great days comes from this year, 1639. It was written by Dirck Albertsz. Raven of Hoorn³. On May 7 Raven sailed from the Texel in his ship *Spitsbergen*, in company with six other vessels, whereof only one (Captain Gale Hamkes) stayed with him. On May 21 he sighted Spitsbergen in lat. 78°, and saw the ice packed against the land. Next day he spoke two Danish ships, who told him that the ice was also packed up against the land further north. The same day he sighted a Delft ship, and a violent storm arose, in which his ship collided with ice and became a mere drifting wreck. All but twenty men of a crew of eighty-six were washed overboard. On the 24th, Gale Hamkes, in the *Oranje Boom*, of Harlingen, came up with him and took off the survivors, who for forty-four hours had been hanging on to the wreck in bitter cold without food or drink. On the 27th they came to off the

¹ Muller, p. 116.

² *Calendar of State Papers, Domestic*, 1639, pp. 45, 363.

³ "Journael ofte Beschrijvinghe vande reyse ghedaen by den Commandeur Dirck Albertsz. Raven, nae Spitsbergen, in den Jare 1639 ten dienste vande E. Heeren Bewindt-hebbers vande Groenlandtsche Compagnie tot Hoorn. Door hem selver beschreven." Hoorn (Jan Jansz. Deutel), 1646, 4to. Second edition, Utrecht (E. W. Snellaert), 1647, 4to. To Raven's diary is appended a "Kort Verhael uyt het Journael vande Personen die op Spitsbergen in't overwinteren ghestorven zijn Anno 1634." Vide Tiele's *Mémoire bibliographique*, p. 213, for further bibliographical information.

entrance of West Bay, which was full of ice. Not till July 4 could they reach Smeerenburg, where the boats of Gale Hamkes brought them to the "tents" of Hoorn. "There we at once set to work and made our three shallops ready, which we had left behind the year before with all their belongings. Very soon we had killed three fish¹." Later, two more Hoorn ships came into the bay, and the survivors were divided between them, and so returned home at the end of the season.

From this account it is evident that Mauritius Bay and the neighbouring sounds were still an excellent whaling base. Yet it was about 1640 that the whales began to grow "shy of the Cookeries and anchorages of the ships, shallops, and what pertained to them²." The whale-boats had to await them nearer the open sea. For some years a profitable fishery was carried on at the North bank, a shoal near the entrance of the North Bay, and at Keerenskaar, a similar bank at the mouth of West Bay. It was possible to tow a dead whale thence to Smeerenburg, but as the whales were driven further off, Smeerenburg became a less and less convenient cookery. Perhaps this began to be recognised about 1642. The sea-fishery was open. There was no monopoly there. Zaandam ships in 1640 fished in the open sea, apparently with success. In 1642 we read of blubber being brought home unboiled. That was presently to become the Dutch method. When the whales finally forsook the bays there were plenty of men already trained to kill them out at sea.

About this time (1640-45) an old Vlieland whaler named Ryke Yse, pursuing his business to the eastward, discovered the islands that still bear his name, where no ship had been before. "He found on them an incredible number of walruses and killed many hundred of them, so that, besides the blubber, he brought away an incredible wealth of tusks, and his owners sold them so well that they made a bigger profit than anyone ever heard of from such a voyage³." It was really useless to renew the Noordsche Company's

¹ It is thus evident enough that in 1639 there was no scarcity of whales in Mauritius Bay.

² Zorgdrager, German edn. pp. 232-235.

³ Zorgdrager, German edn. p. 200.

privilege, which had become unpopular, was contrary to the spirit of the age, and was allowed to lapse. This was generally recognised, and so, as Aitzema says, "it disappeared into the wilderness and desert¹."

Apparently it had been almost a dead letter for some time. Yet the Company were still urgent to keep competitors away from Smeerenburg, a proof that the fishery there remained valuable. But they were unable to keep any place to themselves. Over a hundred ships were in Mauritius Bay in a single season. In 1642 the Hamburgers took part in the whaling industry for the first time. They settled at Hamburger Bay, just outside the Dutch limits. They would not have done so if the whales had altogether retreated from the bays. In the English area there seems to have been no diminution in the supply of whales, for the number of ships sent up had not been enough to frighten or materially reduce the whales that frequented the central and southern harbours. What was happening at the south-east we do not know.

After the failure of Vrolicq's Company, no regular French company sent ships to Spitsbergen. The Dutch mainly supplied France with train-oil and whalebone. But in 1644 a new and powerful whaling company was formed and chartered, with Mazarin himself for protector. He was paid a "gift" of 180,000 livres for his help! The Company was bound to send out from 25 to 30 ships each season. The enterprise appears to have prospered for a time. The charter was renewed in 1669, but the Company's activity shortly thereafter ceased².

About 1644 Smeerenburg's decline had begun. The whales were in steady retreat and had to be followed along the north coast. In 1646 the season was only opened at Mauritius Bay. The fish were now flensed where they were killed. In the ice the "making off," that is to say the cutting up of the blubber into small pieces and stowing it in casks, was done on the spot; but if the coast was near, the whales were flensed on shore. If the shore was not near enough for that, they were flensed at sea and the making off

¹ Saken van Staet, II. p. 808.

² See article by Dr E. T. Hamy in *Bull. de géog. hist. et descript.* Paris, 1901, p. 34.

was done on shore. At first the "trying out" was done on shore as soon as possible. Now, probably, were built the number of small cookeries whose ruins and foundations may still be traced at different points along the north coast. Zorgdrager saw ruins on the Zeeland look-out, Biscayer's Hook, and many other points further east, apparently as far as North-east-land¹. The number of whalebones that lie along the shores of Hinlopen Strait and North-east-land are monuments of old Dutch flensing.

Finally the whales forsook the coast altogether, and could be taken only at sea. Smeerenburg was still used for some years as a storing-place, but it ultimately became valueless even for that purpose, and then it sank to be a mere harbour of shelter for damaged ships requiring refitment, for which purpose we know from Martens that it was used in 1671. Before that time, however, the furnaces had all been pulled down, the coppers taken away, the coolers destroyed, and the buildings emptied. It was a sign that the Dutch bay fishery was ended. "Trying out," as the boiling-down process was called, was now done at home in Holland. Cookeries were set up, especially in North Holland (at Oostsanen) and Rotterdam². There was likewise one at Hamburg. The train-oil was thus more carefully made, and the by-products were saved. The fritters left after the first boiling were sold to other manufacturers, who made of them a second-rate oil and turned the final refuse into dog's meat and glue. Some Dutch ships perhaps boiled down their oil at sea, for in 1655 a derelict Dutch whaler from Spitsbergen was towed into Dartmouth, having on board a great copper vessel of 10 cwt. and oil in casks³.

In 1671, when Smeerenburg had been abandoned for some years as a place of industry, it was visited by Martens, who published in his journal a description of the site, illustrated by engravings of his own sketches. The ship, on which he was surgeon, sailed into Fairhaven by the West Bay. "Then," he writes, "comes Smeerenburg (Plate C, k), where houses built by the Dutch are still standing. They are every year falling to ruin and being

¹ Zorgdrager, German edn. p. 210.

² Zorgdrager, p. 343; Martens (Hak. Soc. edn.), p. 131; J. Honig, *Studien*, p. 161.

³ *Calendar of State Papers, Domestic*, 1655, p. 324.



The Cookeries at Oostzanen, from a panel-painting by A. V. Salm in the Zaanland Museum at Zaandijk.

burnt down. This year several houses were standing, like a village, and some of them were burnt. Over against Smeerenburg are other houses and one copper remaining. They call this place the Cookery of Harlingen. This year there were still four houses. Two were warehouses; the other three (*sic*) were dwellings. The houses are built in this fashion, not very big, with a room and an attic in front and the house behind, fitted with a bedroom¹. The warehouses are somewhat larger. Many casks (*Fässer oder Kardelen*), quite sprung open, still lie in them. The ice stands in a true round of the exact shape of the casks. Anvil, smith's tools, and other implements belonging to the cookery, were frozen up in the ice. The coppers stood just as they were built, and the wooden coolers by them. Thence you can go (? by land) to the English haven. On the other side is a grave-yard where the dead are buried. The soil there is rather crushed, like earth; it is only, however, made flat with toil. Behind these houses (of the Harlingen Cookery) are high mountains. If a man climbs these or others, and does not mark the footsteps or rocks with chalk, he cannot tell how to come down again; for though it seems easy to go up, to climb down again is so very dangerous that many fall and are killed. This bay is called the South Haven or bay, and if the ships suffer damage they are brought here to be repaired. In front in the South Haven, in the valley between the mountains, much fresh water² collects.....In the North Haven or bay is a great mountain or bay that is flat above. This island is named Vogelsang, because of the multitude of birds which settle on it; when they fly up they cry so loud that one can scarcely hear for it....

"One night, in the clear sunshine, we went for a league along the rock-cliffs of the English haven, looking for a whale we had lost. In the middle of the haven others were rowing with the boats. They were scarcely visible. A great mass fell down from a mountain with a loud noise. The mountains were of a black colour marked with white veins [*i.e.* couloirs] of snow. It was so still that scarcely a

¹ "Mit einer Stuben und Boden, hinter ist das Hauss, so breit es ist, mit einer Kammer versehen."

² This fresh water was on Danes Island, in a valley in the north side. It is marked on several of the later charts, and is often referred to.

breath of air could be felt, and it was not cold. The shore was full of walruses. Their bellowing was like the bellowing of oxen heard afar off."

The question as to when Smeerenburg was abandoned is not without interest. Muller thought that it declined with great rapidity even before 1640, and that it was abandoned not long after that date. There are reasons for thinking that such was not the case. The fact that Martens saw an anvil, smith's tools, and valuable coppers still there, is proof of relatively recent frequentation. More important is it to observe that the first known local chart of the Smeerenburg bays was not published till 1655 (by Doncker), and that copies of it were reissued much later. The chart of 1655 marks the sites of the cookeries as though then still in use. Moreover in the text accompanying Doncker's atlas Smeerenburg is referred to in terms that imply its being still in use. He writes of seeing the ships as you sail in from the north, and how you come first to the Amsterdam "tents," off which the ships ride, moored to the land. Then follow the tents of the Chambers of Middelburg and Flushing and others, but before the westerly "tents" a reef shoots out so that ships cannot there come close to the shore. Icebergs falling from the glaciers E.S.E. and E. by N. across the sound sometimes rock the ships before the Amsterdam "tents." Such information would hardly have been printed in 1655 if Smeerenburg had been deserted for a dozen years or more. The English bay fishery in Bell Sound did not become unprofitable till after 1655.

About 20 years after Marten's visit, Zorgdrager was an active, if unlucky, whaling skipper, and paid frequent visits to Spitsbergen. He knew the site of Smeerenburg well, and records (p. 224, Germ. ed.) that in his time nothing remained but the foundations of houses and of eight or ten boilers. He was no longer able even to estimate how many buildings once stood upon the flat ground. Nature had repossessed her own, and the traces of man were rapidly disappearing.

As late as 1773 Phipps records that the whalers used to resort to Fairhaven at the end of the fishing season. He mentions the ruins of Smeerenburg as still visible. In 1784 another visitor records that nothing but foundations were left. Traces of them can still be seen to-day.

CHAPTER XVI.

THE DECLINE OF ENGLISH WHALING.

WITH the abandonment of the Noordsche Company's monopoly in 1642 the Dutch whaling industry took a rapid and great development. New and better ships were built for the trade; 300 ships sailed yearly to the fishing, giving employment to no less than 18,000 hands. For 130 years, from 1642 to about 1770, the trade thrived and brought immense wealth to Holland. But it no longer concerns us, for it was not a Spitsbergen trade. The fleet often, as we shall see, used a Spitsbergen harbour to assemble at before their return home, but Spitsbergen ceased to be the base of the fishery. The English whalers apparently took no part in the sea fishery. Whales kept coming into their bays and that sufficed. They went to the eastward no doubt towards the end of the season, and if home conditions had been favourable they would have proved as enterprising as their Dutch rivals. But home conditions were not favourable. The Civil War upset everything. As Elking says, "it interrupted and discouraged the merchants in this, as in all their trades, so that this Fishery hath been lost to them ever since, some particular attempts to retrieve it excepted." It was not till after 1770 when Dutch whaling declined, that the industry took root again in England, and a period of great prosperity followed; but that is a story that does not concern us here.

In 1643 it was no longer the Privy Council to whom the quarrelling whalers appealed but the House of Commons, whose Journals thenceforward contain many references to

the industry. Thus on April 11th the merchants of Yarmouth petitioned the House, and their petition was referred to the Committee for the Navy. They heard the case, *Merchants of Yarmouth v. the Greenland Co. of London*, ten days later, both parties being represented by counsel. Witnesses were called on both sides. Evidence given by the Hull whaler, Thomas Anderson, contains historical information about the doings of the early whalers sailing from that port which has been quoted above. The Hull men boldly claimed right of access to the Spitsbergen fisheries on the ground of Marmaduke's discoveries. The Committee decided that the Yarmouth ships might go to Spitsbergen this year, but must not injure the London Company's rights¹.

This was a merely temporary decision which settled nothing. In 1645 the matter came again before the Committee for the Navy. Parliament, doubtless acting on its advice, gave notice by their burgesses to all ports throughout England that all who desired should within three months signify their intention of taking part in the trade. Those who did so should join the London Company in guarding the Spitsbergen harbours against foreigners, and should give an undertaking to Parliament to set out yearly a definite proportion of ships. York, Hull, and Yarmouth were the only towns that responded, and thenceforward they seem to have acted in concert with the Londoners. It is stated that the harbours occupied and defended were Horn Sound, Bell Sound, Green Harbour, Cross Road, Mettle Bay (perhaps King's Bay), and Sir Thomas Smith Bay. It was decided at the same time that Bell Sound (probably Recherche Bay only, not Bottle Cove) and Horn Sound were to be reserved exclusively for the Greenland Company².

Next year, 1646, was signalized in the north by another terrible tragedy. In the month of June a Dutch whaler sighted an ice-floe off the west coast of Spitsbergen, which seemed to have something peculiar on it. Sailing nearer

¹ *State Papers, Domestic*, Charles I, Vol. 497 (1643), No. 68; *House of Commons Journal*, III. 39.

² *Calendar of State Papers, Domestic*, 1653-54, pp. 419, 420; *State Papers, Domestic*, Interreg., Vol. 179 (1658), No. 11.

they found it to be a man waving a rope as signal of distress. He was one of five Englishmen afloat on the floe, four of whom were still living and one dead. They had cut out a cave in the ice and piled lumps of ice round the hole for shelter, and there they had miserably spent fourteen days. Originally there had been 42 of them, the crew of an English ship, wrecked in the ice on their way to the fishery. They had escaped from the wreck with one boat. The captain and 17 men rowed away in this boat in a gale, intending to go ashore and return for the others, but nothing more was ever heard of them, and they doubtless went down in the storm. The 24 men left behind finished their provisions and separated on to various pieces of ice, in hopes that some might reach the shore. This group had lived for several days by chewing a leather belt. After being brought aboard the Dutch ship three of the survivors died from the effects of exposure. Only one man was taken back to Delft and returned to England. The others were never more heard of¹.

For the next year or two we hear nothing except a complaint that Thos. North has been fishing in one of the Greenland Company's harbours, and a resolution of the Parliamentary Committee for Trade confirming the reservation of Bell Sound and Horn Sound to the Company.

In 1652 the regulation of the whale-fishery was again considered by the Council of State², who wisely concluded to leave the matter to law or Parliament to decide "when their weighty affairs permit them to consider it." Meantime the parties were recommended to avoid occasions of interrupting one another, and they should go up strong for defence against strangers and help one another in case of need. Letters of "private men-of-war" were granted to the Company's ships, seeing that war with the Dutch was expected. Finally during the season the Company received special permission to send a ketch to Spitsbergen to warn the whalers of the state of affairs. The 12 men in her were to have protection against pressing.

Taking advantage of the "Mutacions of Government" and of the encumberment of the legislature by "weighty

¹ Churchill, II. 429.

² *Calendar of State Papers, Domestic*, 1651-52, pp. 177, 343, 344, 570.

affairs," Warner, Whitwell, and other "free adventurers" sent up in 1652 "a small Pinke of 50 or 60 tun," and afterward "a shipp and a small Vessell intrudeing into the harbours formerly kept and frequented by the Company and them of Hull and Yarmouth, and refusing to come in with them in consorteshipp and to joyne offensive and defensive to keepe the Dutch and French out of those Harbours." Worse still they impudently brought in Dutchmen and other strangers to manage their stock and adventure¹.

To these internal troubles the uncertainties and alarms of European war were now added. The Dutch having neither men nor men-of-war to spare for protection of the whalers, the whale-fishery was suspended for the season of 1653; but the English went up as usual. The *Peace* of London, on her way to Spitsbergen, belied her name and captured a small vessel of Rotterdam, which she brought into Newcastle. Then she sailed on to the fishing and killed three whales before the other whalers arrived—a smart piece of work². Two other ships, the *Louisa* and the *Hunter*, on their way from Spitsbergen to Havre, were taken by some Parliament ships and carried into Yarmouth, and divers French mariners taken out of them were sent with other Dutch prisoners to Chelsea College, but were ordered to be discharged. It afterwards appearing that the two ships themselves had had special passes from the Council of State for the said voyage, they also were let go after a month's detention. Shortly afterwards, when there was talk of making peace with the Dutch, the Muscovy Company cropped up with a petition that payment of that £22,000 which they had been trying to get ever since 1618 should be stipulated for in the treaty; but they never got it.

While the peoples of Western Europe were falling out, Denmark, in a quiet way, took a notable step in the north, for the King in 1653 sent out what may be called the first scientific Arctic expedition. He despatched three ships to explore the polar ocean and to make observations as to the products and characters of lands and seas. These ships

¹ *State Papers, Domestic, Interreg.*, Vol. 66 (Feb. 1654), No. 66.

² *Calendar of State Papers, Domestic*, 1644, p. 15.

visited Novaja Zemlja and then sailed to Spitsbergen¹. Possibly some account of their doings may still exist in the archives of Copenhagen. More information about early Danish Arctic expeditions is much wanted. Some patriotic Dane may find this subject worth investigation.

In 1654 a strong effort was made to put an end to the whalers' disputes in Spitsbergen. We possess very full accounts of the proceedings, which throw a welcome light on the method of the bay-fishery as then pursued. Francis Ashe, Governor of the Greenland Company, set the ball rolling by appealing to Cromwell to make regulations for the trade, so that rival interests should not clash in single harbours and that more harbours should be fished. A Committee of the Council of State was appointed to investigate the question. Thereupon seventeen free adventurers² began a vigorous agitation. They not only appeared before the Committee, but they issued a printed broadside, a public protest addressed "to Parliament and every member thereof," intended to affect public opinion in their favour. From this and other statements we find that contemporary politics were imported into the dispute. "We conceive the right," say the free-traders, "which such as seeke to ingrosse the trade and harbours to themselves, pretend to have, is onely grounded upon a monopolizing pattent: which came from prerogative power, and (is) not consistent with the freedome of a Commonwealth and the members thereof. In the late King's time the Company used all unjust, illegal, and arbitrary means possible to suppress all but themselves³."

The free-traders claimed that the bays which the Greenland Company wanted to keep to itself—Horn Sound, Bell Sound, and Green Harbour (Ice Sound)—were the only certain bays for whaling, other harbours being frequently inaccessible by reason of ice. "No man will adventure upon such uncertainty. So, in that the Companies desire the Harbour of Bell Sound, they desire the whole fishing to themselves." They claimed that there was room for all in

¹ Zorgdrager, German edn. pp. 12, 13.

² One of them was Launcelot Anderson, the Hull Captain who relieved the winterers of 1630-31.

³ *State Papers, Domestic*, Interreg., Vol. 65 (Jan. 1654), Nos. 67, 69.

Bell Sound, even for the 1,100 tons of shipping they were intending to send up this season.

In their reply the Greenland Company relate that where several interests fish in one bay there are sure to be quarrels. Thus last year "a whale being struck by those employed by the Company, divers of the contrary parties struck in their irons into the same whale and occasioned a controversy which rose to a very great height, and neere unto bloodshed, had it not been prevented by a third party. Yet nevertheless the contest continued so long that the loss of the whale was much endangered, being neere driven into the Seas, which occasioned 30 hours labour to our people to save her and hath now occasioned a suit in Lawe."

Incidentally we receive some unique information as to the behaviour of the whales at that time. It appears that they came into the sounds in shoals of from 200 to 300, "to gender, feed, and rubb themselves," and having arrived would stay in a harbour for many days together. Such a shoal consisted of a number of families which swam about "ordinarily 2 or 3 or 4 together, one of which being strucke, the others disperse themselves great distances some one way some another," but it seems that whales not belonging to the group of the one stricken paid little attention. "Soe that when one Interest is onely there, they can take or pursue such as are most likely to goe first out, and to follow the rest at leisure; whereas if there be divers interests, each party disturbs the fish wheresoever it appeares, having onely respect to their owne profitt, and soe suddanly scares or drives away the whales." We learn moreover that in Bell Sound the whales only frequented the broad part and did not (in any quantity) "goe up the branch bays; soe that 30 or 40 shallopps well man'd is sufficient to fish that harbour, if not disturbed by others, and may kill as many whales as if there were doble the number of boats." The Greenland Company state that during five years they made with three ships 500 tons of oil each year in Bell Sound alone; but that when the interlopers came there, double the number of ships made only half that amount of oil, so that the price of oil has risen from £18 to £30 per ton, and the price of whalebone from £1 to £8 per cwt.

The best harbours, we learn, did not yield a profit

every year. The profit came from an extraordinarily good year, which could only be expected once out of three to five years. Then, many shoals of whales coming in, the whalers might make as much as 400 tons of oil and whalebone more than they could carry home. The overplus was left in the storehouses and brought home afterwards as there was room for it in the ships. The free-traders claim that they possessed in Spitsbergen a warehouse even larger than the Greenland Company's, which we know to have been 80 ft. long by 50 ft. wide. They also had many hundreds of tons of casks stored there. Unfortunately we are without any information as to the position of this great warehouse.

Two points were specially urged on behalf of the Company, and both were reasonable. The first was that if the free-traders were allowed to sail, the fishery should be regulated and each interest should be allotted to a special bay or bays. In case all bays were open to all comers, there would be a race for harbours: ships would start unnecessarily early, and money would be wasted. No one would keep in Spitsbergen "stone houses, or hang his coppers, or make other durable provision and accommodation for lodging their men." There would be a rush for Bell Sound (proof that this was certainly the best whaling bay) and the "rest of the continent" being neglected would fall to the Dutch and French. There were 40 or 50 harbours that the Company had discovered, "and the Continent lies yet further both ways." Finally the Company say that they still send a pinnace yearly on exploration, as we know them to have done from the first. With so much exploration it is wonderful that the English charts of Spitsbergen were so bad. Probably the Company kept their discoveries strictly secret. It is possible that some information about these unrecorded voyages may yet come to light, if it is looked for.

The other important consideration urged was the necessity for common action to keep the French and Dutch from coming and fishing in their harbours. The prominence thus given to the French is to be noticed, for little is known about the French whale-fishery in Spitsbergen waters. The importance of the operations of Mazarin's Company, formed

in 1644, can be inferred from this reference. The²² Dutch and French, say the Company, fish in numerous fleets at sea, "and by plying neere the mouth of the harbours breake and beat the scoales of whales." The Company were in the habit of sending up well-armed ships of force, one at least to each harbour, which lay "ready in a warlike posture to defend the rest from surprize, whylest the others turne the whayle." It is implied that the free-traders had no right to avail themselves of this protection without contributing to it.

The Company conclude with the statement that "foreigners vend their worst and foulest oil (being for the most part blubber oil and very ill sented) in this Commonwealth." By blubber oil they presumably mean oil made from blubber brought home to be boiled instead of being boiled when fresh, which gave better results.

It must have been a foregone conclusion that Parliament would not exclude the free-traders from the fishery; and thus the committee seem to have decided at their first meeting. The real question to be settled was under what regulations the fishery should be carried on. Various proposals were made by the contending parties. The free-traders wanted all harbours to be open to all, the first comers to have choice of place, but no more than a fixed number of shallops to be allowed in each harbour. The old partners were of course against this. Horth said that Bottle Cove and "the Rock in Bell Sound" (Axel Island) had been his stations for 26 years, and he had a right to them. Finally the following scheme was drawn up¹:

Bell Sound to be fished by 5 ships	{	2 Where the London ships used to ride (Recherche Bay),
		2 at the Rock (Axel Island),
		1 at Bottle Cove.
Horn Sound to be fished by 3 ships	{	2 at Horn Sound,
		1 at Mettle Bay.
Green Harbour (Ice Sound) to be fished by 2 ships.	{	
Cross Road and Sir Thomas Smith Bay to be fished by 2 ships.	{	1 ship to lay in harbour and a pinnace to ply to and fro or fish at sea.

In all 12 ships, of a total tonnage 3,000 tons, to set out

¹ *State Papers, Domestic, Interreg.*, Vol. 66 (Feb. 1654), Nos. 66, 67, 68, 69, 70. See *Calendar of State Papers, Domestic*, 1653-54, pp. 392, 419, 420, 421.

12 shallops, with 420 seamen, and 160 landmen. At Bell Sound 250 men, at Horn Sound 140 men, at Green Harbour 110 men, and at Cross Road and Sir Thomas Smith Bay 80 men. This suggested distribution enables us for the first time to estimate the relative importance of the bays.

It was further suggested that the 3,000 tons of shipping should be supplied in the following proportions :

The London Company	1,600 tons.
Hull and York	400 „
Horth for Yarmouth	500 „
Mr Whitwell and partners	300 „
Mr Battson and partners (including L. Anderson)	200 „

It was further suggested that any English ship taking whales at sea should be allowed to come into any harbour to boil his oil, provided that he did not fish nor make a disturbance there. A committee representing the various interests was to be appointed, and names were suggested. Objections were urged and counter-propositions put forward during the month of March. The season was approaching, and still the regulations were incomplete. Finally the old London and Hull adventurers petitioned that, as the trade could not be regulated in time this year, they might go up with six ships and a pinnace on their own accounts, and that their men might be free of impress. They sent in a first list of 12 harpooners for York and Hull and 50 seamen, masters, and carpenters. Their petition was at once granted.

In April an ordinance for regulating the fishery was published, whereby a committee of 24 was appointed to make all arrangements according to the general regulations already published¹. Two men-of-war were likewise assigned to protect the whalers. It is to be presumed that after all this fuss the fleet of six ships and a pinnace ultimately sailed. It was a small thing compared with the 70 sail of Hollanders escorted by three men-of-war under the command of Rear-Admiral De Witt, that the English admiral saw sailing for the fishery on the 10th of May. He did not venture to attack them, but one or two stragglers were picked up during the spring, and at least two French whalers were captured on their way home, laden with oil.

¹ *Calendar of State Papers, Domestic*, 1654, pp. 136, 176, 430.

It is clear that the Dutch were more enterprising in the north than the English. When the whales forsook the Dutch bays, the ships were obliged to give up the trade or take to the open sea. They chose the latter alternative. The English bays were still frequented by whales, so the English stuck to them and did not learn the craft of sea-fishing, in which the Dutch became more and more expert. At present, in the fifties there were plenty of whales along the shore of Spitsbergen, and there the Dutch and French killed them. Each year made them more expert, and each year diminished the supply of whales that reached the English bays. They were killed or dispersed at sea before reaching the bays. Thus the English fisheries were doomed, and the English whalers were making no preparation to face the new conditions that must before long either terminate or revolutionise their industry. The Dutch no doubt still often landed on the Spitsbergen coasts, but they no longer boiled down their oil there. They landed merely to hunt reindeer, or, when there were no whales about, for a mere change of scene.

Thus in this year, 1654, we read that Captain Ouwe Kees went ashore with one of his lads and walked for three hours up one of the largest of the so-called Seven Icebergs or glaciers. They estimated that they went a fourth part of the way up the glacier, a distance of more than a Dutch mile. It must be remembered that these glaciers have a very gentle slope and are rough and crevassed, so that the yarn which follows cannot be literally true. It runs thus : When they had gone as far as they cared, Kees said to his fellow, "I am going back, but I have thought of an easier way to go than walking. I shall just let myself slide." And so he did, and travelled at such a pace that everything shimmered before his eyes and he became like a blind man. Not liking the sensation, he presently stopped himself by sticking his heels into the snow. Meanwhile Bommel, seeing how quickly and easily the captain seemed to be going, sat down and followed him in the same way. Unconscious of any danger he let himself go; waving his handkerchief over his head he called out, "I am passing you, captain." Thus continuing to glissade, he shot at last over the end of the glacier, plump into the sea, falling quite



Old Kees' Glissade, from P.P.v.S.

double the height of the west tower of Amsterdam. The captain, having with great difficulty stopped himself, was glad to find an easier way where he could use his feet to go on. He did not know where his companion had fallen or flown to. On coming to his sloop he asked his men if they had seen anything of Bommel. They said "No." "Then," said he, "he has broken his neck. But come, let us row along by the foot of the ice and see if we can find him." Their search was in vain, and they were about to sail away from the place, assured that he was dead, when they heard him calling to them, "Here I am, here I am." He was sitting down below the foot of the glacier-cliff, having swum ashore and scrambled along, and being little the worse for his adventure. The real fact, I suppose, was that they indulged in a sitting glissade down a hard frozen snow slope, ending above the sea near one of the Seven Glaciers.

In his atlas of 1655 Doncker of Amsterdam states with respect to Horn Sound that there "the English generally have their Tents standing for their Fishing Trade; the whole land being indeed under the propriety of the English" (Seller's translation, 1671). But from this year the English whaling industry seems to have declined steadily. The adventurers kept losing money and were greatly discouraged. Moreover the cost of defence in those troubled times was considerable. "In their whale-fishing," the Committee say, "they often meet with French ships who would take them prize if they were not strong¹." No less than 60 sail of Frenchmen were on the Spitsbergen coast in 1655, and 50 of them made great voyages. The Dutch whalers were doubtless still more numerous. The only whales the English could get were those that had already run the gauntlet through this fleet of enemies. Attempts were made by British men-of-war to waylay these ships on their homeward way. Captain Potter reports having chased for six hours and fought for four with a Frenchman of 24 guns, returning from Spitsbergen. She fought very stoutly. A violent storm came on and the Englishman had to look to his own leaks, "having received some unhappy shots under water as well as above." He thus lost sight of his foe and believed she sank².

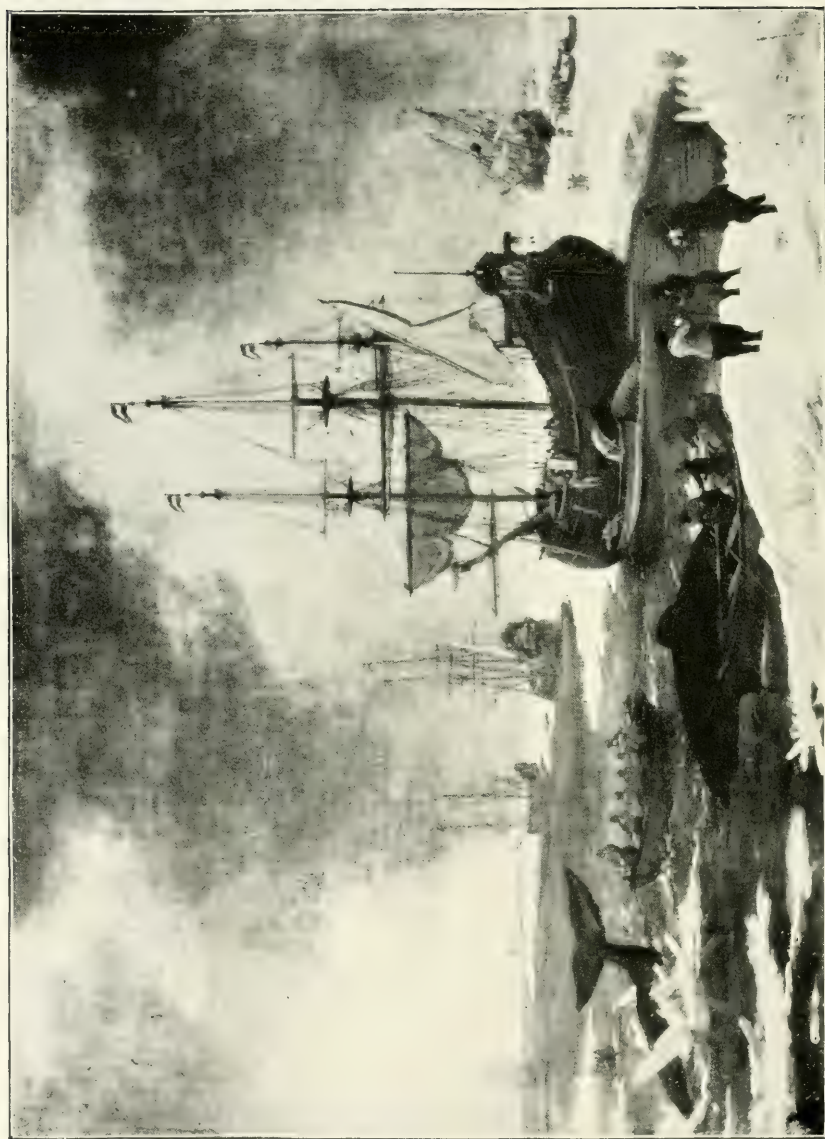
¹ *Calendar of State Papers, Domestic*, 1655, p. 96.

² *Calendar of State Papers, Domestic*, 1655, p. 525.

The English fleet in 1656 consisted of very few ships, perhaps six in all. One was Whitwell's *Adventure*. It is known that Ice Sound was Whitwell's station. Probably Adventure Bay was named from this ship. Of late years the name has been misunderstood and changed into Advent Bay. It was proposed to the Admiralty that four or five good frigates should ply off Cape Clear at a suitable season to prey upon the Biscay fleet of Spitsbergen whalers "who are generally many and make good voyages," but as no captures are recorded the advice was probably not taken.

In 1657 at least five English ships went up. But the adventurers seem to have had little hopes of much success. Dutch oil came freely into England, the Customs officers being bribed to let it pass; and the London traders could not sell their own stuff. In 1658 the London Company were still urgent that the Government should help them to keep outsiders from coming into Bell Sound. They sent in an important but unfortunately inaccurate list of 21 Spitsbergen harbours, to show that there was room enough elsewhere for other interests¹.

¹ Printed at the end of this volume.



Whale-fishing, by Lieven Verschuyt. Rotterdam Museum of Antiquities.

CHAPTER XVII.

WHALERS' ADVENTURES.

THE Dutch fishery was suspended in 1659. Of the English we hear nothing. Henceforward it is the rarest thing to find mention of English whalers in our State-papers. Yet it is probable that the fishery dragged on, for in Macpherson's *Annals of Commerce* (II. p. 544) it is recorded that in 1668 no English whalers went out, and in 1669 only one ship. When the Royal Society of London was founded, one of the first subjects to which it devoted its rather rudimentary enquiries was Spitsbergen and the whaling there. In 1662 it published a series of "Enquiries for such as goe to Greenland, by Mr Hoskins¹." It is clear therefore that some English ships still frequented the Greenland (*i.e.* Spitsbergen) fishery. Such answers as were received came, I believe, from Hull whalers. Those preserved were supplied by Captain Lancelott Anderson and Mr Grey². Grey's notes are here reprinted with some of the slight but spirited illustrations that accompany them. They prove that to the last the fishery in Bell Sound was pursued in the old-fashioned way, long ago given up by the Dutch and French. The account is entitled "The manner of the Whale-fishing in Greenland Given by Mr Gray to Mr Oldenburg for the Society³."

"We have according to the bignesse or smalnesse of our ships, the more or fewer Boates; a ship of 200 tuns, may man six boats; A vessel of 80 or 100 tuns, 4 boats; A Vessel of 60 tuns, 3 boats or more, not lesse; 3 boats

¹ For these and other enquiries, see *Philosophical Transactions*, II. p. 554.

² They are printed in the *Geographical Journal* for June, 1900, pp. 628-636.

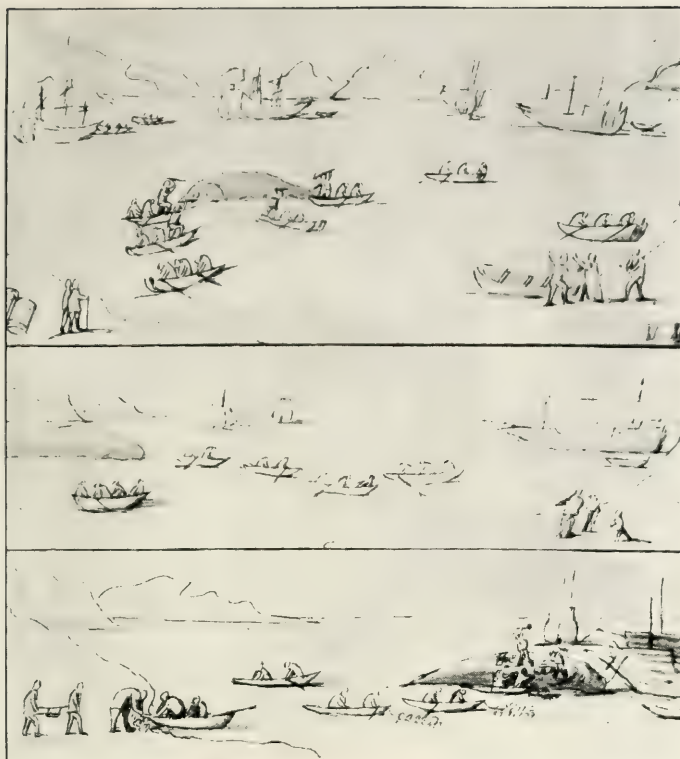
³ *Register Book of the R. S.* Vol. II. (1662-3), p. 308.

being as few as may be with convenience to kill a whale. Each boat hath 6 men; A Harpeneir, Steersman, and four Oars; to which men the merchant giveth, (besides their wages) for every 13 tuns of Oyle (which we call a Whale) when there is so much for each boate, to the Harpenier 6*li.* 10*s.*, the Steersman 3*li.*, and to each Oar 30*s.*, in all for each boat 15*li.* 10*s.*, which we call whale-money.

"We have several men and boats upon several convenient places, which we call *Look-outs*¹, that constantly remain looking out by turnes for the Whale, which when we fish in Harbour, cometh into a smooth Bay, where is a good Harbour for our ships: And having discovered the Whale, which swimmeth with her back above the water, or is descried by the water which she bloweth into the Air, one Lookout maketh signes to another, by hoysing up a basket upon a Pole, and then all the boats row after her, and having opportunity to row up with her, before she goeth down, strike a Harping-iron into her, to which is a staffe joyned being about 6 foot long, called a *harping-staffe*, to the Socket of which Iron is a white rope, with an eye seized very fast: This Rope is about 5 fathoms long, which Lying upon the forepart of the Boat (which we call a Shallop) always coyled over a little pin, ready to take up, to give scope to the Iron, when it is thrown at the Whale; and to this hand-rope is a warpe of 300 fathoms seized, to veer after the whale, lest, when she is struck, by her swift motion (which is often down to the ground, where the water is 60, 70, or 80 fathom deep) she should sink the boat.

"Thus having gotten our Iron into her, our boats row where they think she will rise (after she hath been beating her selfe at ground) and get 2 or 3 more irons into her, and then we account her secure. Then when she is neer tired with striving and wearied with the boats and ropes, we lance her with long Lances, the Irons and stands whereof are about 12 or 14 foot long, with which we prick her to death; and in killing her, many times she staveth some of our boats, beating and flourishing with her tayle above water, that the boats dare scarce come nigh her, but oftentimes in an hours time she is dispatched.

¹ Hence the various points named Lookout, or Uytiky, on the older Spitsbergen maps.



The English Whale-fishery in Bell Sound, from contemporary drawings to illustrate Mr Gray's description.

"Thus having killed her, our boats tow her (all of them rowing one before another, one fast to another like a team of Horses) to the ship's stern, where, after she hath layn 24 hours we cut off the Blubber, and take the finns (which we commonly call the whalebone) and her tongue out of her mouth, and with a great pair of slings and tackle, we turn her round, and take all that is good off her, and then we turn her carcass adrift and tow the blubber (cut in pieces) to the shore where works stand to mannure (*sic*) it.

"Having made fast the blubber to the shore, we have a *Waterside-man* who stands in a pair of boots, to the middle leg in water, and flaweth such flesh as is not clean cut from the blubber: Then we have two men with a Barrow¹, that when the Watersideman hath cut it in pieces about two hundred weight, carry it up to a stage standing by our Works, like a Table; then we have a man with a long knife, who we call a *Stage-cutter*, who sliceth it into thin pieces about halfe an inch thick, and a foot long or longer, and throws it into a Cooler, we call a *slicing-cooler*, betwixt which and another Cooler (called a *Chopping-cooler*) we have men we call *choppers* placed; five or six men, who upon blocks cut about a foot and halfe square (made of the tayle of the Whale, which is very tough) do take the sliced blubber and chop it very small and thin, not above a quarter of an inch thick, and an inch or two long; and thrust it off from the blocks into the Chopping-Cooler, which holds two or three tuns: Then upon a Plat-forme is built a Copper-hole, about 4 foot high, to which there is a stokehole, and on this Copperhole is a broad Copper, which containeth about a Butt, hanged with Mortar and made tight round the edges. And over the Stokehole, upon an Arch, stands a Chimney, which draws up the smoke and flame. And we have one we call a Tubfiller, who with a Ladle of Copper, whose handle is about 6 foot long, taketh the Chopt blubber out of the chopping-cooler and puts it into a hogshead made with strapps for that purpose, and he drawes this hogshead from the chopping-cooler's-side to the Copper and putteth it in; under which having once kindled a fire of wood and boyled a Copper or two of Oyle, the scruffe which remains

¹ Not a wheelbarrow; *vide* illustration.

after the Oyle is boyled out of the blubber (which we call Fritters) we throw under the Copper, which makes a feirce fire, and so boyleth the Oyle out of the blubber without any other fewell.

“Then when we find that it is boyled enough, we have two men which we call coppermen who with two long-handled copper ladles take both oyle and fritters out of the Copper, about halfe, and put it into a Barrow (we call a Fritter-barrow) made with two handles and barrell-boards set about halfe a-quarter of an inch one from the other, through which the oyle runneth and the Fritters remain; from which the Oyle being drained whilst another Coper of Oyle boyles, they are cast into the Stokehole and burnt, and the barrow stands ready again on the first Oyle-Cooler, to receive what is taken out of the next Copper. Out of this barrow the Oyle runs into a great thing we call a Cooler made of Deal-boards, containing about five tuns, which is filled within an inch of a hole (made in the side for the Oyle to run into the next spout) with water to cool the Oyle, and so the Oyle runs upon the water, through this hole into a spout about 10 or 12 foot long, into another cooler filled as aforesaid and out of that, through a long spout into a third filled as aforesaid and out of that, in a long spout into a Butt laid under the end of this spout, which being full, the hole of the Cooler, next the Butt is stopt till another Butt is laid under, and then the plugg being taken out, it filleth another, till we have done boyling: Then we fill up our Oyles, when they are thoroughly cold, and marke them and roule them into the water, rafting 20 together, and so tow them aboard, hoyst them into our ships, and stow them to bring them home.

“And for our Finns, which grow in two Gumms in the whales mouth (whereof in a whales mouth, great and small are about 600, 460 whereof being merchandable) we cut them one by one out of the gumms and having rubb’d them clean we bind them up 60 in a bundle, and so taking account of them ship them aboard in our Long-boat.

“Upon the shoar we have a Tent for our Land-men, built of stone, and covered with Deals, and Cabbins made therein for our Blubber-men to lodge; And we have a great Working-tent with a Lodging-room over it, where,

about 6 Coopers work, to get ready Cask to put the Oyle into."

The only English reference I have been able to find to the year 1663 is a warrant, issued to Robert Child and William Bowles, to make needful provision for such deer as might be brought alive by them from Spitsbergen¹. Whether any arrived is not recorded, but the warrant implies that an English ship was intended for the fishery. This year is however noteworthy in the Dutch Spitsbergen annals, not for any new discovery, but for the first record of a group of discoveries. Up to 1662 no chart (so far as I have been able to discover) depicted the east coasts of Barentsz and Edge Islands, or marked Hinloopen Strait and the islands farther east, excepting, of course, the Muscovy Company's map, published in 1625 by Purchas, which tentatively marked the south point of North-east-land. It is recorded that the Ryk Yse Islands were discovered about 1640-45, but until this year, 1663, they were not inscribed on any chart. This year, however, Hendrick Doncker, of Amsterdam, issued a new chart of Spitsbergen in many respects far better than any that had gone before. In it he not only clearly showed Liefde and Wijde Bays, giving to the latter its full extension and marking a great glacier at the head of it, but he plainly marked the "Straet van Hindeloopen" and beyond it a piece of North-east-land including "Brandewijns baij." Further on he also marked the Seven Islands. He was vaguely informed about North-east-land and only ventured to indicate it as a number of small islands, nor was this inaccuracy corrected till after Giles' voyage of 1707. The west shore of Hinloopen Strait he marked decidedly, introducing the later-named Treurenberg Bay under its earlier designation Beere Bay, and likewise marking the east mouth of Heley's Sound by the name "'t Schip d' Eenhoorn baij," perhaps after the ship which discovered it. He names the hill immediately south of it Lommeberg. The modern Lomme Bay, whose entrance might be easily missed in a fog, is not marked at all, and the result was some confusion in nomenclature at a later date.

¹ *Calendar of State Papers, Domestic*, 1663-64, April 9.

Still more noteworthy is the representation of Edge Island, now clearly shown with the "Ryck Ysse Eylanden" off its east cape. Two anchorages are marked on its east coast. They, like the anchorage off Whales Head and another off one of the Thousand Islands, undoubtedly represent whaling centres. There are ruins of Dutch cookeries still existing not far from Whales Head, and Lamont noticed others on Ziegler Island, which must therefore be the place indicated by the last-mentioned anchor. Anchorages are also marked off Hope Island. Here then we have almost the only exact record of the Dutch fishery in the south-east. We know it to have been extensively carried on. We may perhaps conclude that it was in full swing about or shortly before 1663, the year in which this important chart was issued.

In 1665 and the two following seasons the whaling voyage was prohibited by the Dutch Government, on account of the war¹; but the French continued to venture forth and several of their ships were captured by English and Scotch privateers². In 1668 the Dutch whaling fleet went up again and had bad luck, for 17 ships were wrecked. That was the most icy season on record. The ice-pack came down so far south that no ship could pass north of the Foreland. The wrecked ships must have been destroyed in consequence of these unusual conditions. As a result of the small import of train-oil into Holland, the price of rape-seed rose fast and it was briskly exported from Hull³. The price of rape-seed at this period was a measure of the prosperity of the whaling industry. In a good whaling year rape-seed was almost unsaleable. In a bad year it was in great demand.

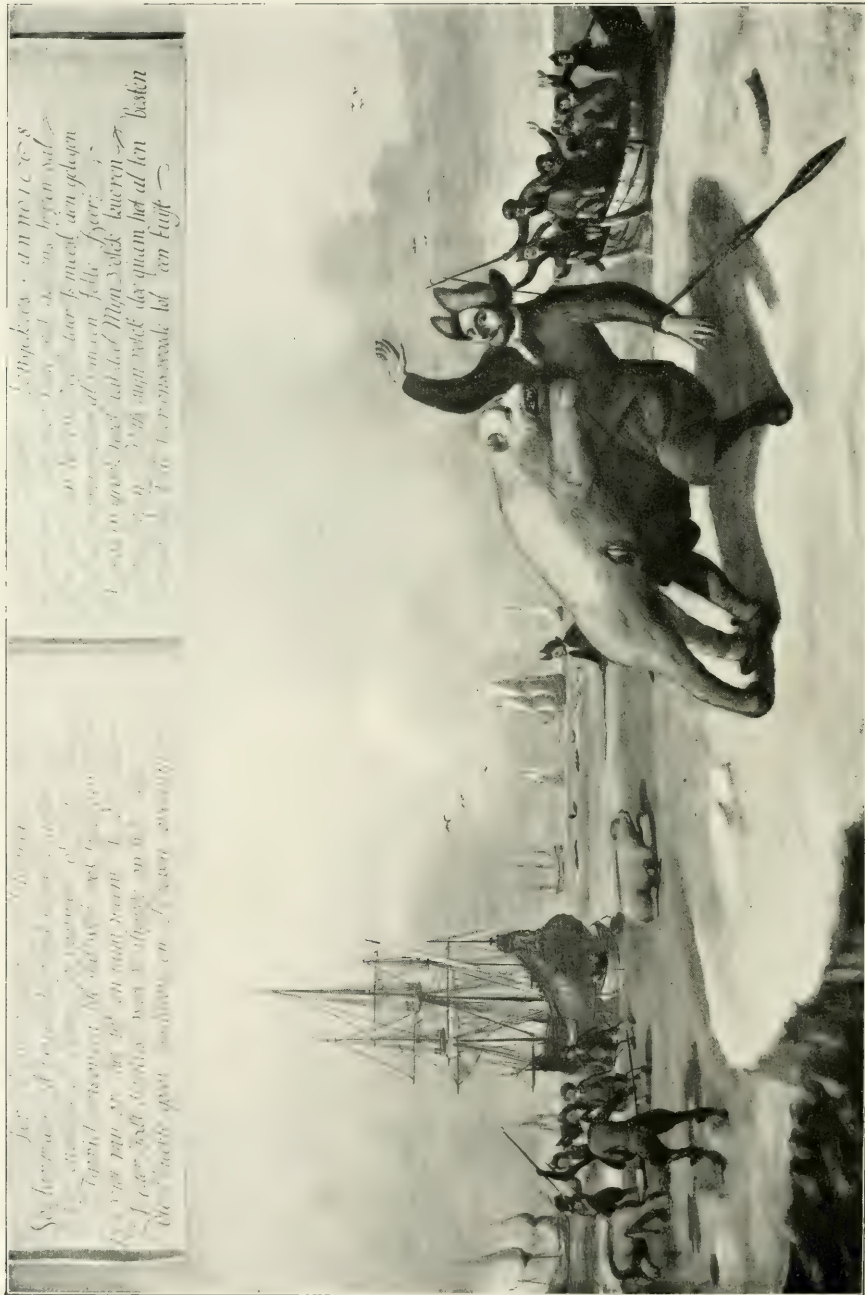
A certain P. P. v. S., who published a volume of Dutch whalers' yarns⁴, records a great bear-fight which the crew of the ship *Hope of Whales* had in this year, 1668. The

¹ Scoresby, *Arctic Regions*, II. 55.

² *Calendar of State Papers, Domestic*, 1666-67, pp. 109, 136; and 1667, pp. 71, 389, 413, 506, 509.

³ *R. Geog. Soc. Proceed.* IX. p. 173; *Calendar of State Papers, Domestic*, 1667-68, p. 544; and 1668-69, p. 17.

⁴ P. P. v. S. "De seldsaame en noit gehoorde Wal-visvangst, etc." 2nd edn. Leiden, 1684, 4to. There is a copy in the Royal Library at the Hague (W. 5895); and one in the British Museum. Many of the stories are incorporated bodily by Zorgdrager, without acknowledgment, in his Part 3, Chap. XI.



The Man under the Bear, from a painting by Tetro in the Zaanland Museum at Zaandijk.

ship was lying in the ice and the crew were engaged in flensing some whales. They had retired for a few hours' sleep when the bear appeared on the floe. A couple of boats put off after him, Captain Jonge Kees being in the first. The bear took to the water and the captain coming up with him struck him fairly with his lance so deep and well-planted a wound that they thought he must immediately die. Not to spoil the skin they refrained from striking him again. The bear, however, swam about and then climbed on to a piece of ice where he lay with his head on his paws like a cat watching a mouse. The captain, therefore, to give him his *coup de grâce* sprang on to the ice alone with a throwing-lance in his hand. Suddenly the bear, with one leap of 24 feet, was upon him and had overthrown him and knocked the lance far away. With his feet upon the man's breast the bear was about to tear him to pieces. The men in the boat yelled but they appear to have been unarmed. One of them, however, seized a boat-hook and rushed to help his Captain, and the other boat approaching at the same moment the bear took to flight. He ran to the edge of the ice so close to one of the boats that they could have reached him with a lance, but the Captain shouted to them not to thrust, fearing that the bear would leap into the boat and kill some men. They threw a lump of wood at him, which missed, and the bear ran after it like a dog after a bone, growling horribly. Then eight men got on to the ice and went for him. As they advanced he slowly gave way, showing his teeth at them. Then the Captain threw a lance at him and again missed. The bear stood over it as though daring anyone to come and get it. They pursued him from one piece of ice to another, a snow-storm raging all the time. At last the brave beast's strength failed and he laid down and died.

This bear story had a more remarkable success than almost any sporting tale known to fame. It even survives till the present day, not only in print but in an oral form, and I have been told it by one of Jonge Kees' descendants, Mr G. J. Honig of Zaandijk. Jonge Kees, it appears, was the younger brother of Old Kees, of whom we shall have more to say presently. He lived at Zaandam and was a very prosperous person. The bear adventure

was his chief title to fame and he did not fail to put it forward. He was known and is still remembered by the nickname, "the man under the bear"; in fact he practically adopted as his badge a figure of a man lying beneath a bear. He had the incident carved as a bas-relief in stone over the door of his house. I have seen a drawing of the bas-relief, but the stone itself is no longer visible. It was last seen broken into four pieces, and used as ballast for a canal boat. Bes, the Zaandam dealer, informed me that the pieces were used in the foundation of the new house built on the site once occupied by the abode of Jonge Kees, which was burned down in 1836. His portrait is in Zaandijk Museum, where also are his set of wine-glasses engraved with "the man under the bear." There too is the go-cart of his grandchildren, with the same incident painted upon it, and other personal subjects, as well as scenes from the whale-fishery. There is also a large picture of the bear adventure in the museum and a copy of it in Mr Honig's collection. Both picture and copy are signed "Tet Roe," a painter not known to nor deserving of fame. The actual skin of the bear remained in the family down to the death of Mr Honig's grandfather, when it was sold. It was the largest polar bear-skin ever seen in Zaanland¹.

It is remarkable that, so far as I can discover, none of the many hundreds of painters, who flourished in Holland during the 17th century, attempted to paint Arctic subjects. A few Dutch pamphlets dealing with Spitsbergen affairs are illustrated with rather rude woodcuts, and we find a few amateurish drawings of the whale-fishery of this date. Holland possessed many sea-painters, yet I have failed to identify, after long search, more than one 17th century picture of a whaler. Pictures of ships sailing away or arriving are common. The sailing and return of the whaling-fleet was a great event at Amsterdam. Surely some painter must have depicted it. It was not till quite the close of the 17th century, when Dutch art was declining, that the whaling industry was made the subject of pictures. In the 18th century they became common enough, but none

¹ Engravings of Jonge Kees' portrait and of Tet Roe's picture may be seen in the "Zaanslandsch Jaarboekje voor het jaar 1853" (Zaandijk), which also contains an article on the famous skipper.

of them seems to be concerned with Spitsbergen. It was the sea-fishery that was painted.

The best picture of the sort that I have found is one by Lieven Verschuyr, recently purchased for the Rotterdam Museum of Antiquities on the advice of Mr B. W. F. van Riemsdyk, Director of the Amsterdam Museum. Through his kindness I am able to include a reproduction of it here. Another good whaling picture by A. Hondius is in the Fitzwilliam Museum at Cambridge, representing whalers shut up in the pack. A second-rate artist, named A. van Salm, a Zaanlander, seems to have devoted much attention to this class of subjects. I possess a drawing by him. Better are two large signed monochromes by him in the Zaandijk Museum, where also is a companion picture of the blubber-boiling establishment (*Trankokerijen*) at Oostsanen. The whaling skippers gave plenty of employment at this time to third-rate village artists. In Zaanland I saw numbers of trays painted with incidents from the whale-fishery, as well as two or three bureau-desks similarly decorated. Seamen's chests were likewise so adorned. They were of a roughly cylindrical shape like the trunk of a tree hollowed out. Edam Museum contains the seaman's chest, dated 1706, which belonged to Jacobus Jongtyts, skipper of *De Joanna* of Amsterdam. There is a very busy whale-fishing painted on it. A poor artist, Joghem de Vries, painted the fishery in 1772 on a tray, and I also saw a similar picture by him.

The finest whale-fishing that I have seen is boldly painted in blue on 63 white Delft tiles by the good Delft painter Baumeester¹. He also painted a yet larger Herring-fishery, now in the Amsterdam Museum. Whale-fishing scenes may also be found very delicately engraved upon glass bowls, a good example being in the little Museum at Zaandijk.

Among the tales recorded by P. P. v. S. is another bear-story,—an adventure that happened to two youths who landed and walked along the shore. One of them carried a lance; the other was unarmed. A bear spied them and rushed upon them. They could not run away so had to abide the shock, the unarmed lad standing behind the other. The bear leapt upon them but was

¹ It is in my own possession.

fortunately stricken to the heart by the first blow and fell dead at their feet. Attacks by Polar bears are very rare, those beasts generally being afraid of man. Now and again, however, one does attack in this fashion and unarmed men have sometimes fallen victims to such mischances.

Another good story is told of the harpooner of Old Kees, a well-known whaling captain of those days. It happened in 1660. One day the cry went up "Whale! whale!" Old Kees came up with the fish first and struck the harpoon into her himself. A second whale-boat came up immediately afterwards. Its harpooner Jacob Dieukes stood ready to strike another harpoon into the whale when she returned to the surface. Unfortunately she came up immediately under his boat and smashed it with her head, knocking the crew out. Dieukes, instead of falling into the sea, landed on the whale at the thin end of the beast near his tail. His harpoon stuck into the whale and he himself was entangled by the line so that he was firmly attached to her and must go where she took him. The whale swam away, faster than the boats could follow, with the harpooner riding her. They called out to him to cut the line and free himself but he could not get at his knife. After a long and perilous ride his harpoon came loose and he was able to part company from his undesired mount. A boat soon rescued him from the water, none the worse for his strange adventure.

In 1670 we hear of English ships in the Spitsbergen waters, their ill-success being recorded. Apparently they killed no right whales at all. As however we are told that they made 24 tons of oil out of white whales it is certain that they must have been prosecuting the bay fishery. White whales were always taken by the English when they had the chance. They were caught in nets, or rather driven ashore by aid of nets, and so could only be taken in the bays. The white-whale fishery continued as a supplementary industry to other forms of Arctic hunting down to a recent time in Spitsbergen. It is probable that the utter failure of the English in 1670 put an end to their whaling. Next year the Dutch were so successful that the price of rape-seed at Hull fell "to nothing¹." There is no record

¹ *Calendar of State Papers, Domestic*, 1660-70, p. 433; 1671, p. 471.

of an English ship setting forth. Henceforward for about a hundred years foreigners had the industry practically to themselves. Attempts were sometimes made to revive it in England by legislative enactments, but they failed one after another. The first was made in 1672 and elicited but a feeble response. Later efforts were no more successful till over 60 years had gone by. A sea fishery was then established, but Spitsbergen was little affected by that¹.

The visit of Frederick Martens, a Hamburg surgeon, to Spitsbergen in 1671, makes that year an important one in the history of that remote region. He was moved to make the uncomfortable journey by a scientific impulse. To accomplish his end he enlisted as ship's surgeon on the *Jonah in the Whale*, a ship of Hamburg, which sailed from the Elbe on April 15th, was off Jan Mayen on the 27th, and sighted the southern extremity of Prince Charles' Foreland on May 7th. "The land," he writes, "appeared like a dark cloud, full of white streaks." When they first came near the Foreland, the foot of the "mountains looked like fire and the tops of them were covered with foggs. The snow was marbel'd and looked as if it were boughs and branches of trees, and gave as bright and glorious a gloss or shining to the air or skies as if the sun had shin'd." Of the interior he knew nothing; he only went along the shore. "The miles," he says, "look very short but when you go to walk them upon the land, you find it quite another thing and you will soon be tired; and also because of the roughness and sharpness of the rocks, and for want of a path, you will soon get warm be it never so cold. A new pair of shoes will not last long here."

The *Jonah in the Whale* hunted whales in the open sea west of Spitsbergen for over 5 weeks, killing 8 whales, besides seals, bears, and walruses. On June 14th they came to an anchor off the site of Smeerenburg. We have already quoted Martens' description of the place as it then appeared in its desolation. On Amsterdam Island he noticed "a great and high mountain," which, he says, "is usually covered with cloud, when the wind blows over it, and darkens the haven as if smoke were coming from it.

¹ Scoresby, II. 67-95

On the mountain stand three white hills, covered with snow. Two of these hills stand near together." Zorgdrager (p. 288) climbed this mountain in 1703 or 1704. He calls it *Marri met de Brosten*, which Muller says should be *Moer* (mother) *met de borste*. "These breasts," says Zorgdrager, "are merely great ice-mounds, as large as a small Dutch sand-dune by the seashore, or a great haystack." They then sailed on past Vogelsang and eastwards apparently to near the mouth of Hinloopen Strait. They did not yet know for certain whether it was a strait or a bay¹. They also saw the Seven Islands in the distance. On July 22 they set sail to return home. He records that it was the whalers' custom in his time to hunt in the open sea between Jan Mayen and Spitsbergen in May and June, and near the Spitsbergen coast in July and August. The further the season advanced the more easterly were the whales. This Zorgdrager explains at great length. Martens speaks of seeing plenty of ships. As many as thirty were in sight at one time.

Martens made the first botanical collection known to have been brought from Spitsbergen. He also observed the birds, and made all kinds of observations on natural phenomena that he could think of. His published account of his journey laid the foundation of arctic science. It was a most successful book. His statements, quoted or merely stolen, were practically all that was known about Spitsbergen before the scientific expeditions of the nineteenth century. Martens states that the Enquiries of the Royal Society were brought under his notice by Mr Oldenburg, doubtless the same Fellow whom we have seen communicating the answers of Mr Gray. He endeavoured to reply to them and thus enlarged the scope of his modest work. The book was illustrated with several interesting plates. It was translated into many languages and often reprinted².

¹ If Hinloopen Strait was so named after Thymen Jacobsz. Hinloopen, a manager of the Noordsche Company in 1617 and later, it seems likely that it had been explored long before 1671, but there was a strange general ignorance about its south end till the explorations of Giles in 1707.

² The English translation was first published in a volume entitled "An Account of several Late Voyages and Discoveries to the South and North..... By Sir John Narborough, Captain J. Tasman, Captain John Wood, and Frederick Marten (*sic*). London, 1694, 8vo. This translation was republished by the Hakluyt Society in White's *Spitsbergen*. London, 1855, 8vo.

CHAPTER XVIII.

INCIDENTS OF WAR AND OTHER EVENTS IN SPITSBERGEN WATERS.

SOONER or later the echoes of European wars were generally heard in Spitsbergen waters. So it happened in 1674, when three French frigates, under the command of Panetié of Boulogne, cruised in the northern seas. The highest latitude they reached was 77°. There, probably near or in Horn Sound, they captured 10 Dutch whalers. They carried away two of them laden with the cargoes of the rest, put the crews of all ten into a third and sent them home in her, whilst they burnt the remaining seven. The greasy hulls must have made a fine blaze¹. The Dutch ships must have gone up at their own risk, for from 1672 to 1674 the fishery was formally suspended in consequence of the war².

On modern charts a bay on the north side of Ice Sound is marked Klaas Billen Bay. The name was not, however, originally given to it, but to a bay on the other side of the sound, now popularly known as Advent Bay (Adventure Bay). Captain Cornelis Claasz Bille was a well-known Dutch whaler, and there is a story recorded about him by P. P. v. S. which here finds place, for the adventure happened in 1675. Bille's ship had had a good season and was ready to sail homeward fully laden when she had the misfortune to be beset and apparently crushed by ice. The captain and his crew of 34 persons took to the boats in haste, having only 48 pounds of bread and 4

¹ *Journal du corsaire Jean Doublot de Honfleur*. Edited by Ch. Bréard. Paris, 1887, pp. 37, 38.

² In 1672 (May 18) a Flushing privateer took a French ship "bound for Greenland." *Calendar State Papers, Domestic*, 1671-72, p. 407.

Edam cheeses with them. They rowed and sailed about for a fortnight and had given themselves up for lost, suffering as they did from hunger and cold. One of the boats, containing six men, then reached Smeerenburg where they found a Dutch whaler anchored to an ice-floe. They were taken on board and fed, but four of the men still seemed very ill and told the surgeon that it was their feet that hurt them. They were in fact frost-bitten. The surgeon forthwith prepared a tub filled with salt-water warmed with salt meat (*saltz Wasser von Peckel-Fleisch warm*) and made them keep their feet in it—an extraordinary treatment, ice-cold water and friction being the right counteraction for frost-bite. After an hour their feet became much more painful and then the surgeon said there was hope of their cure, and in fact in a few days' time when the dead flesh had been cut away and the wounds properly dressed the men recovered and went to work again. Cornelis Bille with fifteen men found another ship likewise near Smeerenburg. Three of them were still worse frozen but the same surgeon cured them by a remarkable treatment. He applied some powerful remedy to the dead flesh which came away in 18 hours, and the wounds healed ten or twelve days later. This year no less than 13 Dutch ships were destroyed and 72 men killed by one icefloe near Smeerenburg. 125 ships collected at Fairhaven and thence sailed for home in company.

The discursive P. P. v. S. likewise preserves an account of the adventure of four Dutch ships in the following year 1676. It resembles that of Nordenskiöld and some Norwegian sloops about 200 years later. Old Kees, Young Kees (in the *Hope of Whales*), and Veen were whale-hunting in their respective ships in the northern part of Hinloopen Strait, off the great glacier whose long sea-front occupies about two-thirds of the coast between Heckla Hook and Lomme Bay. It was late in the season (Aug. 13) and they were about to sail home when the ice packed down on them from the north and drove them hard aground. They were firmly beset and could see no open water in any direction. The days were shortening and the cold strengthening. Old Kees' crew began to murmur. Presently they came to the captain and said that they

proposed to take boats, fill them with three weeks' provisions, drag them over the ice and abandon the ship. Old Kees reasoned with them and tried to persuade them not to do so, but they were not to be persuaded. Then Old Kees told them to go if they would, but that if they went he would not under any circumstances receive them back again. He would stick by whomsoever stayed with him, but the men that left him must shift for themselves. They must live or die by their own actions. This declaration frightened them and they stayed. They had their reward, for (19 days after they were beset) on September 1st, in calm weather, there came, how and whence they knew not, a great movement in the sea. The ice broke up. The ships were rocked about and moved into deep water. Slipping their anchors they sailed away at once, rounded Parrot Hook, reached Biscayer Bay and Smeerenburg a day later, and all arrived home in safety.

A similar misfortune happened in 1683, but had no such lucky issue. Thirteen Dutch whalers were in Treurenberg Bay when the ice packed down on the entrance and enclosed them. That was always the danger of this bay, and its name Treurenberg or Sorge Bay may have been given to it in consequence, the true Treurenberg perhaps being some look-out point, whence the behaviour of the pack was watched. The enclosed Dutchmen this time abandoned their ships, dragged their shallops over the ice into open water, and fortunately succeeded in reaching other Dutch whalers on the west coast before they had sailed away for home¹.

The Revolution of 1688, which seated William of Orange on the throne of England, and the consequent War of the Grand Alliance against France, lasting from 1689 to the Peace of Ryswick in 1697, were not without their effect on the Spitsbergen fisheries. Dunkerque privateers were now able to prey on the whaling fleet of the Dutch, as they preyed on the merchant fleets of all the opposing Powers, and they did so with great effect. For the time they paralysed English foreign trade. These were the great days of Jean Bart, Pointis, Duguay-Trouin,

¹ See *Relation du Voyage, etc.*, printed by Dr E. T. Hamy in *Bull. de géog. hist. et descript.* Paris, 1901, p. 51.

Nesmond, and the like bold privateer-captains. The prizes captured by the Dunkerkers during this war were sold for no less than twenty-two millions of livres. At the beginning of the war the combined English and Dutch fleets were no match for the French. The battle of Beachy Head in 1690 established their inferiority. Two years later however the tide turned and the great naval victory of La Hogue transferred the command of the Channel to the allies, who held it thenceforward. We read no more of naval engagements between powerful fleets but of raids upon the commerce of the contending nations. It was not likely that the whalers would be forgotten. It is recorded that in 1690 the French corsair, Jean Bart, entirely destroyed the fishery of the Dutch, where and how I have not been able to discover. The doings of a French naval expedition to Spitsbergen in 1693 are, however, fully reported and have been made the subject of an interesting article by Dr E. T. Hamy, illustrated by reprints of contemporary documents¹. The following account is based on this article.

The expedition was undertaken by advice of Renau d'Elicagaray, "le Petit Renau" as he was called. Monsieur de la Varenne, captain of the *Pélican*, was in command. He was accompanied by three other frigates: *l'Aigle*, *le Favory*, and *le Prudent*. The soul of the expedition was a Basque with the monstrous name, Johannis de Suhigaraychipé, better and more easily known as Coursic (le petit corsaire) or Croisic (le petit croiseur). He was captain of *l'Aigle*. It is recorded that in the preceding six years he had captured more than 100 ships from the Spanish and Dutch. Another Basque, Louis de Harismendy, was captain of *le Favory*; whilst Jacques Gouin de Beauchene commanded *le Prudent*. Most of the officers, pilots, and mariners seem to have been Basques.

The squadron came in sight of Spitsbergen on July 28th. Next day they captured a Danish ship, which was empty, and made her follow them. They found and took two

¹ In *Bull. de géog. hist. et descript.*, Paris, 1901, pp. 32-64, with reproduction of contemporary chart. The principal document appended is entitled, "Relation du Voyage de Spitsbergen en Groeland, par quatre frégattes, sous les ordres de M. de la Varenne, Capitaine de Vaisseau." This appears to have been written by a Basque officer of the *Favory*, probably Ensign d'Etchebehere.

more Danes in Magdalena Bay. Varenne's instructions were to burn or sink all ships flying the English, Dutch, or Hamburg flag. In the case of ships flying the Danish flag he was to examine whether they were really Danish, and if they were he was to let them continue their fishery, and even help them in any way he could. Ships that were doubtful, or were recognised by the Basques as really Hamburg or Dutch, he was to capture and lade with the cargo of the burnt ships, if time allowed, and was to send them to France under escort, manning them with prisoners. In case there were too many of these, he was to save enough ships to hold them and let them sail away to their homes, after depriving them of all cargo and tools for the fishery.

The French with their three prizes entered South Gat and there found 15 or 16 Dutch and Danes. *Le Favory* was promptly sent to Danes Gat to take the whalers there, but they received news overland (by way of Danes Island) before *le Favory* could arrive, so three vessels escaped and got away north-eastward to warn the rest of the whalers. In all they captured four Dutch in South Gat, and the rest Danes. There were two other Dutch in South Gat "who escaped by a way which was unknown to the commander. On being informed he sent his lieutenant in the great shallop armed, to try and stop them, but he could not do it, finding resistance superior to his forces."

On the 30th *le Favory* captured a new Dutch pinnace returning empty from the ice, and *l'Aigle* took a Dutchman. Next day *le Favory* took two more Dutchmen and a Dane and brought them all into the South Gat, whilst on Aug. 1st *l'Aigle* came in with two Dutch prizes, having burnt another, and seen about 50 Dutch whalers to the north-eastward in the ice. Harismendy, taking Croisic with him, went on board the *Pélican* and told Varenne what he had seen. They urged that the fleet should be at once pursued. Varenne seems to have been inert, and was censured for it when he returned home. He said he would stay where he was and guard his prizes but that *l'Aigle* and *le Favory* might go in pursuit, and that if *le Prudent* returned in time he would send her after them, which, however, did not happen.

L'Aigle and *le Favory*, with their enterprising captains, immediately sailed northwards, but calms impeded them. On the 4th they came to a field of ice, two leagues wide and longer than they could see in both directions. They found a lead and passed through into open water beyond. They then saw that the enemy were near the great pack, so they sailed towards them. On the 5th, being quite near the pack, they counted 45 whalers in or near it, and 9 at the mouth of Treurenberg Bay. They call this Beerbay, "la baye aux Ours." Dr Hamy identifies it with Lomme Bay; but though Lomme Bay is sometimes wrongly marked "Beer Bay" on old charts, the true Bear Bay was Treurenberg Bay, and all the topographical indications, as well as the map illustrating the report, prove this to have been the scene of the fight that presently took place. The French decided to pursue these nine ships and accordingly sailed through a thick mist in that direction. About midnight on the 6th the weather cleared and all the French could see were three Dutch ships in the ice and four entering Treurenberg Bay, just where the nine had been the day before. The French concluded that they would find the rest within the bay and decided to follow them. The wind falling they were obliged to tow the frigates with four boats to each. They thus approached the bay, keeping the lead going. On a tongue of land at the mouth of the bay, on a little rising ground, they saw an earthwork with guns and a Dutch flag flying¹; but this did not frighten them. Forging ahead they neared the fort, which fired on them but did no harm. When they could see to the bottom of the bay they counted 40 whalers, all flying the Dutch flag, and they distinguished amongst them those of the admiral, the vice-admiral, and the rear-admiral. All the ships were ranged in good order in a crescent formation. The two frigates were towed up to the Dutchmen within half the range of a 3-pounder, which was as far as they could come in consequence of the calm and of the current. Then they cast anchor "et nous mimes de côté entravers

¹ Parry in 1827 ("Narrative," p. 137) found 30 Dutch graves on this spot, but the oldest with a date was of 1738. A grave dated 1690 was on the beach E. of Hecla Cove. These dated graves to the eastward might be used as implying "open ice" years. Unfortunately not many of them have been recorded by travellers.

au moyen de nos croupières." The Dutch raised derisive shouts of *Vive le Roy!* and other cries which the French could not understand.

Croisic and Harismendy sent a shallop well equipped, flying a white flag and with a drummer, under the command of Ensign d'Etchebehere, who could talk Dutch well, to summon the Dutch to yield. When this shallop approached the admiral of the enemy it was met by a Dutch shallop escorted by others. The Dutch captains replied to the summons to yield that they were surprised at such temerity, in that the French should think of attacking them when they were in such numbers and moreover in a place the dangerous character of which the French probably did not realize. They refused to yield and declared themselves ready to acquit themselves of their duty.

Before the French shallop had returned to the frigate the Dutch began to fire their guns both on the shallop and the frigates. The former was hit, but without damage to its crew. The shallop containing Captain Harismendy, who was returning to his ship from *l'Aigle*, was likewise hit. This was between 8 and 9 o'clock in the morning of August 6th. The fire of the Dutch continued heavy till 1 o'clock and was warmly replied to by the French. The whalers had crews of about 40 to 45 "good men, all sailors," and each ship from 10 to 18 guns. As long as their powder lasted "their discharges went on as regularly as if they had been from musketry." The French state that their own fire was so effective that if the sea had not been absolutely calm, "as in a fountain," most of the whalers would have sunk.

After five hours' fighting the Dutch fire slackened but the French continued as vigorously as ever, expecting to see the enemy hoist the white flag and ask for quarter, seeing that they had almost ceased firing. Instead of doing so, however, several of them cut their cables and started towing out, each being towed by six or more shallops, doing their utmost to escape from the bay by help of the shallops and the current. The French had only two shallops left, one for each frigate, the rest having all been destroyed in the fight. They were thus unable to prevent the escape of most of the whalers, but they captured 13.

If Varenne's ship or *le Prudent* had been there the whole fleet would have been taken. This fact was duly reported to the authorities in France on their return. Varenne was censured and deprived of his command. It is stated that he was quite inexperienced in arctic navigation, whilst Croisic and the other Basques were experts, so that the real censure ought to have fallen on those who appointed an unsuitable commander. The two frigates were not badly damaged. "*L'Aigle* a esté obligée de changer son mât de mizaine et gimeler (jumeler) ses basses vergues. *Le Favory* a eu un mât de hune de rompeu et sa vergue d'artimon, un canon crevé et 2 de démontez." Two men were killed on the *Favory*, one of them being an officer who had volunteered from the *Pélican*. "Il a finy glorieusement, ayant reçu un coup de canon à la cuisse et apres avoir donné des marques fort sensibles tant de sa valleur que de son experiance et bonne conduite." The losses of *l'Aigle* are not recorded. There were also several wounded, some of them maimed for life. Nothing is said about the losses of the Dutch.

On the 7th the French sailed away with 11 prizes, having burnt the other two. On the 9th they met the *Pelican*, which had just taken two Dutchmen. On the 10th they rejoined Varenne in South Gat. During their absence he also had taken two prizes. In all they captured 28 Dutch whalers, of which they burnt 17 and took the other 11 away home. *Le Pélican* and *le Prudent* sailed on the 12th, leaving the other two frigates to convoy the prizes. They sailed on the 14th, and on the 17th they sent away to their own country 16 Danish vessels carrying the Dutch prisoners. They contained but little cargo. The writer of the report suspected that these ships really belonged to Hamburg. Most of their captains admitted that they were Hamburg men. Their method was to take out papers at Altona, which then belonged to Denmark. They paid fees for them into the Danish treasury. This suited the Danes and enabled the Hamburg merchants to trade in time of war as safely as in peace. Croisic concluded to let them go because their cargoes were not worth seizing.

One of the officers on his return to France transmitted to the Duc de Gramont a chart representing the doings of

the expedition¹. It was shown to the king, Louis XIV, who expressed himself pleased with the behaviour of the officers and crews of *l'Aigle* and *le Favory*, and promised to remember them "quand il y aura lieu de leur faire plaisir."

It was the impression of the French that they had entirely overthrown the voyage of the Dutch this year, and that those ships that escaped must have returned home practically empty; but such, as we shall presently see, was not the case.

G. van Sante's records for this year incidentally throw some welcome light upon the method of the fishery at this time. The beginning of the season was poor. Only one Dutch ship was successful. She killed 12 whales and went home full-laden before the French arrived. Eight Dutch ships and ten Danish were lost by misadventure in the ice. Thus it happened that the whalers had to go eastward as the season advanced to make their voyage, and they had just come among a quantity of whales and were doing well when the French fell on them. One ship was already full-laden. Five dead whales were found drawn up for flensing on the shore of Treurenberg Bay. Undoubtedly the French interruption at so critical a moment did great damage. It appears that the Dutch ships that escaped made off down Hinloopen Strait. They refitted somewhere and perhaps continued their fishing after the French had gone. It is stated that at this time only the Dutch went so far east. None of the Basques had ever been there; for this part was considered very dangerous, as the ice might pack down quickly and shut up the entrance of Hinloopen Strait. The French were afraid it might do so while the fight was proceeding because the pack was only about two cannon-shots away and was rapidly approaching. A south wind, however, sprang up and saved them from being enclosed in Treurenberg Bay along with their enemies.

A manuscript in the possession of Mr G. J. Honig of Zaandijk enables us to complete the story of this season. From it we learn that 89 ships went to the fishery. As

¹ It is preserved at Paris in the Dépôt des cartes et plans de la marine, Pf. 2, div. 7, p. 1. There is a full-size tracing of it in my *Spitsbergen Atlas* at the R. Geog. Soc., London.

only 62 are indicated on the French map, the rest may have been off Edge Island at the time of the French raid. Of the 89 ships 26 were taken and 6 were wrecked in the ice. The remainder brought 175 whales home. The rate of insurance at the time, covering both sea and war risks, was 2 per cent. This year the whalers paid 71,200 florins for insurance and received 666,100 florins from the underwriters, so it was the latter who suffered. The rate of insurance next year seems still to have remained 2 per cent.

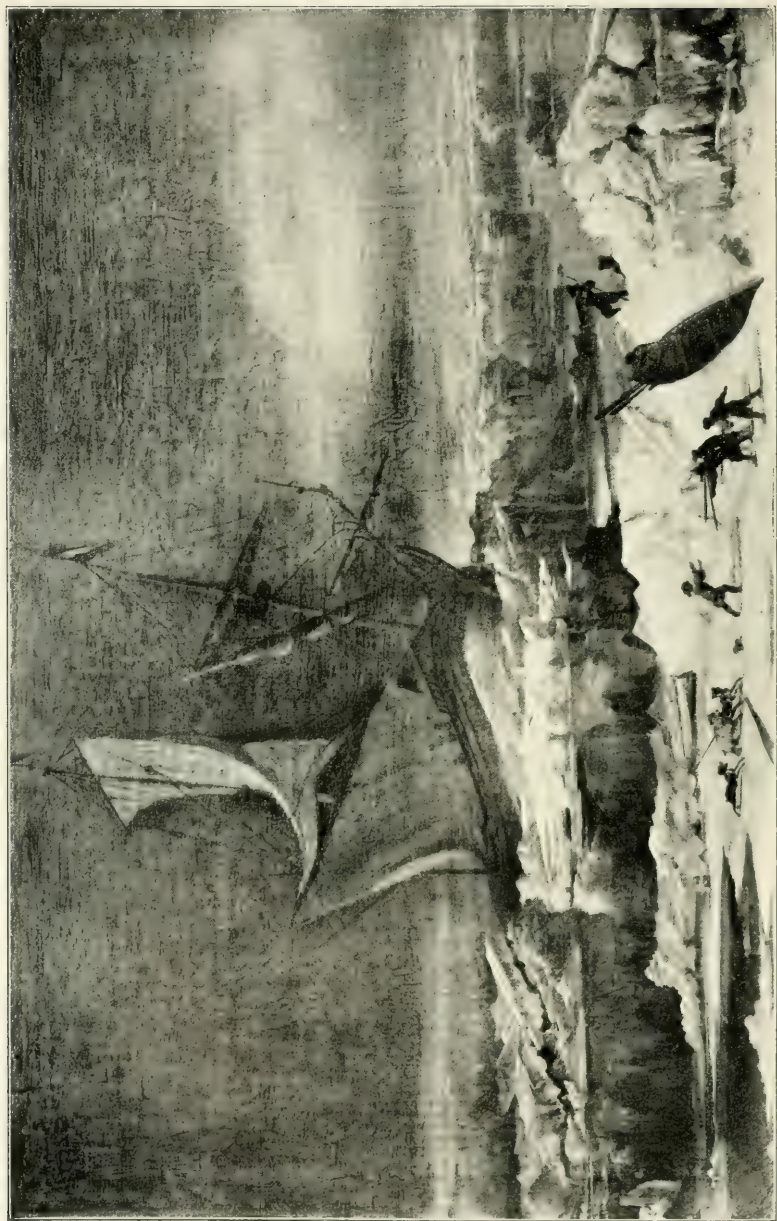
Mr Honig also possesses the balance-sheets relating to the voyage of two Zaanland whalers this same season. Albert and Cornelis Claesz were their skippers. Both made very profitable voyages, and not only repaid a balance of loss on their ships from preceding years but paid a big profit besides, the price of oil being unusually high.

1693 was not the only year in which Dutch whalers suffered the misfortunes of war. French writers claim that in 1696 the famous Jean Bart captured a Dutch fleet of 106 sail in the north, after carrying by boarding five States men-of-war which were sailing as convoy. Bart is said to have admitted 61 of these prizes to ransom. The cold and unimaginative account-books belonging to Mr G. J. Honig, however, with their records of rates of insurance, sums paid to and received from underwriters, price of oil, and so forth, disprove this assertion. They record, from year to year, the total number of Dutch whalers that were taken. The numbers are as follows:

1696	.	.	.	.	1
1697	.	.	.	.	2
1702	.	.	.	.	3
1703	.	.	.	.	17
1705	.	.	.	.	4
1706	.	.	.	.	2
1710	.	.	.	.	2

Notwithstanding such mishaps, the whale-fishery became increasingly popular in Holland.

In 1693, as we have seen, 89 Dutch ships went to the fishery. It is not surprising that in 1694 their number sank to 63; but in 1695 they rose to 97, in 1696 to 121, and in 1697 to 129 (which confirms the untruthfulness of Jean Bart's boasted captures). The number steadily in-



A Whaler in the ice-pack, from a painting by Abraham Hondius in the Fitzwilliam Museum, Cambridge.

creased to 207 in 1701. The English meanwhile were inactive. Their whaling industry never recovered from the troubles of the Revolutionary period, and they had lost the art of organising it. In 1694, indeed, an English Company speculated in whaling, but they were extravagant in equipment and wages. Reindeer skins and horns were permitted to be the captain's perquisite, a foolish arrangement, for it made captain and crew, who were certain of their wages and were not paid by shares, more anxious to hunt and supply themselves with venison than to go out after whales. The Bay fishery tradition was also firmly fixed in their minds. The ships, says Elking (p. 47), went "to the bays and diverted themselves with hunting the deer, and left the shallops to look for whales." The voyage was consequently a failure.

The year 1697 was universally remembered as the best known till then for the Spitsbergen whale-fishery. At this time Cornelius Gisbert Zorgdrager was a whaling captain. He made his first voyage as "Commandeur" in 1690¹. He was reputed, and is still noted at Zaandam, an unfortunate skipper. Honig² says that between 1700 and 1705 he lost two ships, and that in the other four voyages he only got thirteen fish. In 1720 he published his important book on Dutch whaling, to which I have been much indebted. That work incorporates without acknowledgment matter previously published by others: Leonin's account, P. P. v. S.'s stories, Marten's observations, and perhaps other writings that I have not identified. In the midst of this patchwork Zorgdrager inserted his own notes, reminiscences, and the traditions of his men. Speaking of the year 1697, he says, that at the close of the season he lay in Recherche Bay in his ship the *Four Brothers* with 7 whales on board, along with over 200 other ships mostly well laden. They had collected together for safety, owing to the war with France. They were convoyed home by nine Dutch and two Hamburg men-of-war. "Among all these ships there was not one that

¹ He says (p. 209) that on the occasion of his first voyage to Spitsbergen he saw two English warehouses still standing in Bell Sound. The date may have been about 1670.

² *Studien*, p. 65.

had killed no whales. Many were full-laden. The least successful Dutch ship had three whales. In this inner bay, which is named Schoonhoven, all these ships were able to ride together with a good sandy anchorage, protected from all winds. There also came in and joined us several Russian vessels, to take advantage of our convoy¹." We possess three several lists of the ships and cargo of this year². The following is given by Harris.

	Ships sent out	Ships lost	Whales	Casks of blubber
Dutch.....	129	7	1,255	41,344
Hamburg ...	51	4	449½	16,414
Swedes	2	—	113	540
Danes.....	4	—	52	1,710
Bremen	12	—	96	3,790
Embden.....	2	—	2	68
Lübeck	1	—	½	17
Totals...	201	11	1,968	63,883

The total value of all the blubber and whalebone was £378,449, whereof £249,532 fell to the Dutch.

This, the first mention of Russian vessels in Spitsbergen waters, deserves notice. As Russians are not included in the above list of whalers it is probable that they did not go up in pursuit of whales. An important export from north Russia was skins and furs. The people of the White Sea were expert huntsmen, and were wont to frequent Novaja Zemlja for the chase. It is probable that they came to Spitsbergen to kill seals, walruses, bears, foxes, and reindeer, as we shall presently find ample record of their doing through a long series of years. At present their appearance attracted little notice. It seems to be implied

¹ Zorgdrager, German edn. pp. 208, 209.

² Zorgdrager, *loc. cit.*, B. du Reste's in the *Histoire des Pêches*, and one in Harris's *Travels*, II. (a), p. 398 (edn. of 1748).

that they only came up for the summer. When they took to spending the whole year in this bitter land their adventures and sufferings found frequent record.

In this very year 1697, when Peter the Great was in Holland, the people of the great whaling centre Zaandam performed for his entertainment and instruction an imitation whale-hunt in their haven. One wonders whether the development of Russian enterprise in Spitsbergen waters was in any way influenced by that spectacle.

We find a simple statement that in the year 1700 there was a great whale-fishery near Stone Foreland¹. The bare fact is all we know. It suffices to prove that the coasts of Spitsbergen were still frequented by whales, however completely the bays may have been abandoned by them. 1701 was another great season, when 207 Dutch ships captured no less than $207\frac{3}{4}$ whales². Nothing is said about where the fishing ground lay at that time, but Zorgdrager (p. 288) in an interesting passage gives very full information about the habits of the whales at this time.

"In the year 1703 or 1704," he writes, "when I came out of the ice with two fish, I was beset in my ship the *White Sheep* along with four others, below the Zeeuschen Uitkyk (Outer Norway Island). We lay fast there for several weeks and only got loose on August 24th, if I remember right. We then sailed through along the coast to Smeerenburg and from there on the 26th through South Bay (*i.e.* West Bay) into the sea. The joy of our men to find themselves again in the sea after so tedious and anxious a besetment was very great and I fully shared it. During the time we lay beset, we heard and saw whales almost every day, sometimes few, sometimes many, often within but oftener outside the bay. We were, however, so firmly beset that it was impossible to fish. We often landed on the Uitkyk (a high point) and saw from thence the whales come up at small gaps and holes in the ice. When one went down another came up in his place. As we were sailing away we also saw several whales in the North Bay, one of which came quite close to us, so that we had a good chance to fish; but we had enough to do to save our ship, so we did not attack the whales. Likewise

¹ Scoresby, II. 180.

² G. van Sante, p. xxvi.

when we were lying off Smeerenburg, we saw and heard some whales round Maklyk Ond¹ and in the Dutch Bay. While we lay there we climbed the hill (on Amsterdam Island) called *Marri met de Brosten*, which breasts are nothing more than big mounds of ice, about the size of a large hay-stack or a small sand-dune, such as one sees on the shores of Holland. We climbed up these mounds and came down afterwards on to the main mass of the mountain.

"From this mountain we saw some ships sailing outside Magdalena Bay, and about it in the sea, and near the edge of the ice, which was not far from land, for the whole fleet was waiting for us in Magdalena and Cross Bays, the time for sailing home having come. We could not see then, and did not afterwards hear, that they saw any fish either in the sea or under the ice near the land; but near us wherever the ice lay we saw many fish, that seemed daily to increase in number."

Zorgdrager concluded that the fish knew the ships and kept away from them, and that when they were aware that the fleet was departed they disported themselves freely as they used to do in the open sea and in the bays before the whalers intruded upon them. Now, however, it was only within the ice that they so behaved.

The year 1707 is notable for the last important addition to the knowledge of Spitsbergen geography added by whalers while carrying on the operations of their industry. The facts are briefly recorded in a letter of John Walig, as follows².

"In the year 1707 Captain Cornelis Gillis³, having gone without any ice far to the northward of 81°, proceeded from thence east, and afterwards south-east, remaining to the

¹ A misprint for Makkelijk Oud. Muller says that this was the name of three small bays in Fairhaven, one just south of the N.W. point of the main island, one (also named Krayennest) further S., and one in the S. coast of the haven. Zorgdrager on his map marks it as the point or low ness forming the N.W. angle of the island. His mention of the name, above, seems to imply that it designated a cape. In Giles and Rep's chart it is marked in the middle of the E. side of Fairhaven.

² The letter is dated 3 Jan. 1775, and was printed by the Hon. Daines Barrington (*North Pole*, edn. of 1818, p. 143).

³ The name is spelt Giles on his own map. It is also sometimes spelt Gillies and Gilies. Giles is the best authenticated form.

east of the North-East land, when coming again to latitude 80 he discovered about 25 miles east from the country, to the north-east, very high lands on which, as far as we know, nobody has ever been." In response to Mr Barrington's further enquiries, he received the following account, drawn up in March 1775, by Captain William May.

"Finding that Mr Van Keulen had put down (in his chart) the land discovered by Captain Gillis, mentioned in Mr Walig's letter, I went to him, to see on what foundation he had placed that discovery; but as those papers could not be found, I applied to Mr Walig, who told me, that Mr Cornelius Gillis had been an inhabitant of the Helder; that Walig...and others, since dead, had often examined Gillis's papers, maps, etc., and found that he was an enterprising man, and very accurate in his remarks and charts; that his grandson had his Journals and other Papers in his possession; and his granddaughter, who was married to an officer of Walig's ship (who had formerly been a commander) has his charts, some of which that officer generally took with him, in order to correct them. I begged hard to have them, if only for twenty-four hours; and next morning Mr Walig put into my hands the original draughts of all the discoveries Mr Gillis ever made with regard to Spitsbergen, excepting some particular drawings of bays and views of land, with permission to keep them in my possession till Mr Walig's return from Greenland, copies of which are here annexed¹; and Mr Walig promised to procure me, if possible, all the papers of that old commander, before he left the Texel, which I hope to receive in a few days, and shall not fail in sending over everything I find material. Asking what particulars Mr Walig and others remembered out of those papers, they gave the following short account. "That Mr Gillis passed more than a degree to the northward of the Seven Islands, without any hindrance from ice; that he proceeded east for some leagues with an open sea, then bent his course south-east, and afterwards south; saw in the latitude of 80°, to the east, very high land; ran

¹ Daines Barrington therefore possessed copies of these important documents. "These," he says, "were copies of the draughts of the different coasts of Spitsbergen, of which Captain Gillis hath taken accurate surveys."

through (*i.e.* sailed down) the east coast of the North-East Land, and entered the Waygats (Hinloopen) Straits; came to an anchor in Lamber (Lomme) Bay, and took two whales, and from thence proceeded to the Texel."

The loss of Giles' papers is unfortunate, but it is probable that his observations are all included in the great chart of Spitsbergen, published (without date) by Gerard van Keulen, and stated to have been edited by (*opgegeven door*) the "*Commandeurs Giles en Outger Rep.*" From G. van Sante's list we learn that Rep did not sail for the whale-fishery after 1702. Giles sailed in the seasons from 1700 to 1714¹. The discovery of 1707 therefore was made by Giles only, and not by Giles and Rep as sometimes stated². The chart in question marks "*Commandeur Giles Land ontdekt 1707 is hoog land*" a few minutes N. of 80°. It likewise depicts the whole of North-East Land and the surrounding islands far more accurately than any previous chart, besides correctly depicting Hinloopen Strait and the coasts of Spitsbergen generally. Its worst part is the northern half of Wybe Jans Water, obviously a mere copy of earlier charts, with Heley's Sound running north. Barents Island is fully attached to the main island. This chart sums up the knowledge of Spitsbergen geography obtained by the whalers and is a remarkable production. Its weakest point is its nomenclature. The old names given in the times of the bay fishery were already becoming confused and transposed. The very sites of the old fishing stations were forgotten. Many of the modern blunders in the naming of the bays and capes of Spitsbergen date from this chart.

Giles Land has seldom been sighted since Captain Giles discovered it. Captain Carlsen, first circumnavigator of Spitsbergen, saw it on August 16, 1863, when sailing down the E. coast of North-East Land, as Giles had done. Captain Tobiesen saw it on August 7th, 1864, from near the eastern point of North-East Land. About 1896 Mr Arnold Pike's boat *Victoria* visited Giles Land on a

¹ Both probably lived at the Helder, but they were employed by Zaanland adventurers, Giles for a group of the inhabitants of Yisp, and Rep for Olphert Daalder of Oostsanen. (Mr Honig's information.)

² F. van Hellwald, *Im ewigen Eis*, p. 390.

hunting expedition. Finally in 1898 Dr Nathorst in the *Antarctic* not only circumnavigated and photographed the island, but landed on its N.E. and S.W. points and investigated their geology. "Giles Land," he writes¹, "was glittering white from its highest summit down to the very edge of the sea. It was covered throughout with its soft mantle of snow; not a rock projected through it to break its spotless purity. The island rose in regular curves to an altitude of 600 or 700 feet, and was one continuous mass of ice and snow. The ice plunges down into the sea all round the island (except at the N.E. and S.W. ends), and is quite inaccessible, being abruptly broken off at the water's edge, thus presenting a steep wall of ice to the waves, and forming in some places big cubical icebergs.... With the sun shining upon it White Island (Giles Island) must be a fascinating object. It is considerably larger than previous maps represented it to be."

Henceforward the whalers' records are almost silent about Spitsbergen, and the old traditions died away and were forgotten. It was still, and for more than a century remained, the custom for a whaling vessel to look into some Spitsbergen harbour towards the end of its voyage, there to "make-off" or clean ship and hunt reindeer². A few such references can be gleaned, though they are of little interest. Thus in 1721 Kühn, who was cook's mate on the *Einhorn* of Hamburg, mentions seeing Klok Bay (Bell Sound) and staying a while in Green Harbour to clean ship, where two other Hamburg and six Dutch ships were similarly engaged. He says that he saw there the ruins of the huts where the Dutchmen wintered in 1633-4. He was thus either at Smeerenburg and blundered over the name of the harbour, or in Ice Sound and had forgotten the place of the wintering. In the following year the ship on which he sailed went to Moffen Island for walrus, and cleaned up in Magdalena Bay, where they shot 18 reindeer.

In 1758 a Swedish medical student, A. R. Martin³, was

¹ *Geographical Journal*, Aug. 1899, p. 170.

² "When the Fishery among the Ice is over, the Ships go sometimes to the Bays of Spitsbergen and the Men go ashore to refresh themselves. There they find very good Deer, especially Roebucks: They are very fat."—Elking's *Greenland Trade*, 1725, p. 31.

³ His journal is published in *Ymer*, I. 102.

allowed to sail as a naturalist, on a whaler sent out from Gottenburg. He was only able to land for three hours, and then not on Spitsbergen but on a small island near the Foreland, where he gathered a few flowers, whilst his companions killed eider-ducks, and collected a vast quantity of their eggs.

In 1780 the ship on which Bacstrom was surgeon spent three weeks in Magdalena Bay along with a number of other whalers, for the purpose of "cutting the blubber up into small bits to fill the blubber-butts." While the crew "were 'making-off,' the masters, surgeons, etc., of the different vessels then there visited each other and diverted themselves in the best way they were able. Such visits last sometimes 24 hours, for there is no night to interrupt the entertainment." The season of 1780 was the finest anyone could remember, "almost constant fine weather." Bacstrom on this occasion attempted to climb Roche Hill, but only got halfway up after several hours' work. Such brief excursions on shore added nothing to the knowledge of arctic lands. Martens remained the great authority. It was not till the age of organised scientific expeditions that scientific observers had a chance of obtaining accurate information about the fascinating lands of the north. Before those days came, however, Spitsbergen was visited and even inhabited by men from a nation that had taken no part in the whaling industry—the Russian trappers. To these new folk and their new occupations, ideas, adventures, and sufferings we must next turn our attention. After the end of the 18th century the Dutch fishery became unimportant. 1802 was the last year in which many Dutch ships sailed for the fishery; the very last sailing was in or about 1864. It was from England that the most successful whalers in the 19th century sailed to the northern seas. With their doings, however, we are not here concerned.

CHAPTER XIX.

RUSSIAN TRAPPERS IN SPITSBERGEN.

THE whalers of the year 1697 recorded that several Russian vessels were in the Spitsbergen seas that season. They mention them casually and not as a novelty. In the list of the year's bag of whales none are ascribed to them, and we are probably safe in concluding that these Russians did not come up as whalers, but as huntsmen, to kill white-whales, walrus, seals, bears, reindeer, and foxes, and perhaps to collect eider-down. Thus the Russian trappers frequented Spitsbergen long before the whalers ceased to visit those islands; and, as we shall see, they, and their later Norwegian rivals continued to make Spitsbergen their hunting-ground for many years after the scientific exploration of the country was definitely taken in hand. It seems best, however, to depart from the strict chronological order which we have thus far followed, and to treat the industry and adventures of the trappers separately, for they had no connexion with the whalers and in no way depended on them.

From the narrative of the adventures of the four Russian sailors, which immediately follows, we learn that the Russian industry on Spitsbergen was fully introduced some years before 1743, for it is stated that one of the four men, Ivan Himkof by name, "had passed the winter several times on the western coast of Spitsbergen." It is also recorded that the hut in which the four unfortunates took refuge had been built some time previously by some inhabitants of Mezen who had intended to winter there. This hut stood about a quarter of a mile from the sea. It was 36 ft. long by

about 18 ft. broad. It had a small entrance-hall, or porch, about 6 ft. wide. In the main chamber was a Russian clay stove. In fact the hut was similar to others which at a later time were dotted about all round the Spitsbergen coasts. The fact that Zorgdrager, whose book was published in 1720, knew nothing of Russian settlers wintering in the island, seems to indicate that the Russian Spitsbergen industry sprang up between that date and 1740.

"In the year 1743 Jeremias Ottamkoff, an inhabitant of Mezen in Jergovia, a part of the government of Archangel, bethought himself of sending out a vessel with 14 hands to Spitsbergen, to fish for whales and sea-calves (*i.e.* not to winter), in which line he carried on a considerable trade. For eight days together this vessel had a favourable wind, but on the ninth it changed. Instead of proceeding to the western side of Spitsbergen, to which the Dutch and other nations annually resort for the whale-fishery, they were desirous of sailing to the eastern side, and shortly reached an island which is called East Spitsbergen (*i.e.* Edge Island), known to the Russians by the name of Maloy Brown, which signified Little Brown; Spitsbergen proper¹, being called by them Bolschoy Brown, that is, Great Brown. They were within three versts of shore (two English miles), when suddenly the vessel was inclosed by ice²." The place where this happened was probably on the south-east coast of Edge Island.

Expecting the destruction of the ship, the mate Alexis Himkof, his godson Ivan Himkof, and two other sailors, Stephen Scharapof and Feodor Weregine by name, prepared to land and search for a hut, which they knew had been built by countrymen of theirs with a view to wintering in those parts. It was determined that if the hut could be found the ship should be abandoned.

The four sailors provided themselves with such things as were necessary for their use during the few days they

¹ They also called it Grumant, a mispronunciation of Greenland.

² This is quoted and the remainder of the story condensed from "A Narrative of the singular adventures of four Russian sailors, who were cast away on the desert island of East Spitsbergen, etc." By P. L. Le Roy, translated from the German original (s.l. et d.) (London, 1774). Reprinted in Pinkerton's *Collection*, and for the most part in Thomas Day's *Sandford and Merton* (London, 1783).

might be away from the ship, for they had to travel over piled and broken ice for two miles to the shore. They took a musket and twelve rounds of ammunition, an axe, a small kettle, a knife, a tinder-box and tinder, about twenty pounds of flour, a bladder of tobacco, and each man his wooden pipe. They soon discovered the hut about a quarter of a mile inland.

Next morning they returned to the shore, and were horrified to discover that ice-pack and ship had been carried away and the open sea confronted them. The ship was never heard of again. They immediately set to work to patch up their hut by help of their axe and the driftwood, of which they found a considerable quantity on the shore. Their twelve rounds of ammunition procured for them twelve reindeer, with which they started housekeeping. The only vegetable product of the island was a little scurvy-grass.

Amongst the driftwood they fortunately found fragments of wreckage which provided them with some boards as well as with a long iron hook, some big nails 5 or 6 inches long, and other bits of iron. They also found a piece of fir root which only required to be trimmed with their knife to form a handy bow.

By heating the hook and working at it with a nail they made a hammer of it. With a large pebble for anvil and two reindeer horns for tongs they next forged two nails into spear-heads and fastened them into wooden shafts with thongs of reindeer skin. Thus equipped, they sallied forth and slaughtered a white bear after a most perilous fight. His flesh gave them food, and out of his tendons, which they discovered how to split, they made cords which served them for bowstring and for tying on to wooden shafts small iron arrow-points which they made in the same way as the spear-heads. With these arrows, during the years of their imprisonment, they slew no less than 150 reindeer, besides a number of blue and white foxes. Of bears they killed in all ten, nine in defending themselves from attack and the one above mentioned. Such was the entire supply of food on which these men subsisted till August, 1749—a period of six years. They smoked some of their meat, but ate most of it raw, for they had to husband their fuel. It was this

plentiful supply of raw meat and fresh blood, coupled with their active life, that preserved three of them from scurvy. The fourth, Feodor Weregine, who was an indolent man, and, moreover, refrained from drinking reindeer blood, was attacked soon after arrival in the island, and died of scurvy shortly before the others were relieved.

To keep their fire continually alight was a prime necessity, for, their supply of tinder being exhausted, if it were to go out they would be unable to relight it. They therefore determined to make a lamp. Nearly in the middle of the island they found some earthy clay of which they fashioned a rude pot. They filled it with reindeer fat, and used some twisted linen for a wick. When the fat melted, however, it oozed away through the sides, which were too porous to hold it. So they made a new lamp, dried it thoroughly, and then heated it red-hot, and quenched it in their kettle in a mixture of flour and water boiled to the consistency of thin starch. They covered its outside with linen rags which had been dipped in the paste. This contrivance succeeded, and the lamp held oil; they accordingly made a second for fear of accidents. For wicks they used a small quantity of oakum and cordage washed up with the driftwood, and tore up their shirts and undergarments. The supply thus formed lasted as long as they were on the island.

They made clothes out of skins, which they soaked several days in water till the hair could be pulled off, and then rubbed dry with their hands and afterwards thoroughly greased and rubbed. They made needles out of bits of iron and wrought them with considerable skill, as was vouched for by those who saw them on their return to Europe. Sinews served for thread. In summer they wore jackets and breeches of skins, and in winter long fur gowns with hoods.

They described the island as having many mountains and steep rocks of a stupendous height constantly covered with snow and ice. Its only vegetation is scurvy-grass and moss. About the middle of the island they found the "fattish loam or clay" above referred to. There are no rivers, but many small rivulets. As for the weather, they said that from about the middle of November to the beginning of

January it generally rained hard and continually, and all that time the cold was moderate. After this rainy season severe cold prevailed, especially when the wind was from the south. They once heard thunder.

Shortly after the death of Weregín the survivors, in August 1749, were rejoiced by seeing a Russian ship, which had been carried out of its course to West Spitsbergen by contrary winds. She was driven close to shore just opposite the hut. The men on board saw the fires and reindeer-hide flag of the castaways, and came to anchor near the shore. The three men agreed with the master of the ship to give them and their goods a passage to Russia in return for their work on board and a payment of 80 roubles. They had accumulated 2,000 lbs. weight of reindeer fat and quantities of furs and hides. They brought off also the poor tools by whose help they had been enabled to keep themselves alive.

They arrived in safety at Archangel on September 28th, 1749. Alexis Himkof's wife was present when the vessel came into port, and immediately recognised her husband. She was so overcome with joy and eagerness to touch him that she fell into the water and was nearly drowned. All three men on their arrival were strong and healthy. They could not reconcile themselves to eating bread, nor to the use of spirituous liquors, of which they had been so long deprived.

Their adventures were noised abroad, and attracted much attention. Alexis and Ivan Himkof were sent for to St Petersburg, and took with them the tools they had made on the island. Their story was carefully examined by several persons, who became convinced of its verity. It was written down and published in German by P. L. Le Roy, Professor of History, and Member of the Imperial Academy of Sciences at St Petersburg. The pamphlet had a wide circulation, and was translated into English, French, Dutch, and (I believe) Italian, and published in numerous editions.

There can be little doubt that the success of these men in holding out so long against such appalling odds did much to encourage the people of the White Sea to develop their Spitsbergen hunting industry.

The Russian ship that relieved the castaways was itself carrying up a party who had intended to winter in Novaja Zemlja but had changed their destination to Spitsbergen. No sooner did the castaways reach home than another ship was sent up with a wintering party to the same place on Edge Island where Himkof and his companions had lived so long. It was despatched by Count Schuwalow, who had received from Empress Elizabeth of Russia a charter for the northern whale-fishery¹. The crew of this vessel reported that they found the hut, which appeared to have been recently inhabited. In front of the door was a cross with an inscription, stating that it had been set up by Alexis Himkof and calling the island "Alexeyewskoi Ostrow."

Judging from the number of ruined Russian huts still visible or recorded on all parts of the shores of Spitsbergen, it might be imagined that a considerable hunting population at one time inhabited the country. Such, however, was not the case. Daines Barrington in 1774 writes that "there are three or four settlements of Russians in Spitsbergen." That number was probably about the maximum at any one time. Keilhau states that the same site was not inhabited by Russians in two consecutive years, and that, even so, the wild animals and especially the walruses, grew to shun the neighbourhood of a Russian hut. Thus it came to pass that in process of time every considerable bay in Spitsbergen contained two or three Russian huts of different ages².

The trappers came from Mezen, Archangel, Onega, Rala, and other places on the White Sea³. They sailed in vessels of from 60 to 160 tons called "Lodjes." The normal crew of a lodja was 22 men, who were paid either by shares or wages. Those met by Bacstrom were paid by shares of the season's bag. A share was one-thousandth of the bag. The captain took 50 shares, the mate and surgeon each 30, the carpenter, boatswain, and cook 10 each, every common man and boy 1 share. This pay was generally enough

¹ Keilhau, p. 161.

² Passarge's *Schwedischen Expeditionen*, p. 355.

³ *Vide* Colonel Beaufoy's *Enquiries*, printed as an Appendix to Daines Barrington's *North Pole*, London, 1818, p. 227. The answers to the enquiries were obtained from Archangel. They are the source of most statements about Russian trappers found in Scoresby and other writers of that period.

for a man to live on for a whole year ; more than enough in the case of the officers.

Charitonow¹, from whose most interesting account of the Russian trappers I now quote at length, states that the captain was paid 1000 paper-roubles and knew how to make a further handsome profit by selling stores to the crew. "With part of this profit he buys a cask of brandy and divides it amongst the crew and thus all are satisfied. An ordinary trapper receives for the voyage from 170 to 200 paper-roubles, varying according to the results of the expedition². About a week before he starts, he borrows from the owner of the ship, on account, some sixty roubles, and drinks and enjoys himself until he has only two kopecks left. Once more sober, he goes to the church, confesses, takes the Communion, and then starts at last, after offering up a short prayer for his journey."

On their way to Spitsbergen they put in at "Wargajen or Wardohuus, where they renew their orgies till they are forcibly carried off by the Norwegians, at the request of the Skipper, and carried on to their Lodja."

Such expeditions were usually sent out by private adventurers or by a company, like the "White Sea Fishing Company," which was at one time very prosperous. When the trade declined, the last adventurers to send forth expeditions were the monks of the famous convent of Solovetskoy on the White Sea. Some settlements were almost permanently retained in Spitsbergen, the men going up one year being relieved by a fresh crew next season. Such was

¹ Die russischen Promyschleniks auf Grumant, in Erman's *Archiv f. wiss. Kunde von Russland* (Berlin, 1851), pp. 9, 154, 184. The translations here given were kindly made for me by Mrs W. Kemp Welch.

² "The Trappers are usually divided into three classes, according to their skill. To the first class belong the best shots and the cleverest ice-navigators, who bring most gain to the Ship-owner, and for that reason are paid handsomely by him—100 silver roubles and more—to which must be added the skins which they receive from the Skipper as a bonus. A marksman of this class easily brings away 450 roubles as profit derived from his stay in Spitsbergen. The less skilful members of the expedition receive a much smaller reward—at the most 200 paper roubles. Their share of the skins, apportioned by the Skipper, is also less than that of the first class. The third, and last, class is made up of the novices, who make the journey for the first time, or who, through laziness, have only taken a small amount of booty. Such folk receive only 125 paper roubles, and do not share in the division made by the Skipper. There are even men in the expedition whose pay does not amount to more than 60 paper roubles."—Charitonow.

the Fairhaven establishment visited by Bacstrom. A ship left Archangel in May, reached Fairhaven in June or July, stayed there about three weeks to tranship cargo and crew and returned to Archangel. Frequently the trappers hauled their lodja on shore for the year of their stay, and dragged it down to the water when the time for their departure arrived. If the whole party died, as not seldom happened, the abandoned lodja was their monument; it might be for years. The shores of Horn Sound and those of Wybe Jans Water (Titowa Guba, as the Russians called it) retained such tragic memorials till a relatively recent period.

The voyage from the White Sea to Spitsbergen was a slow affair, and was reckoned, says Charitonow, to take on an average about 50 days. This slowness is not surprising when the lumbering character of the vessels is remembered, and the fact that the captains were usually simple peasants, with no knowledge how to take the simplest observation, no sounding-line, no clock, only a compass and a rough chart drawn by each pilot for himself¹. One wonders how they ever arrived anywhere. We often hear of a lodja missing its way and reaching some part of the coast entirely unknown to every man on board. But a trifle of that kind was not disconcerting to these hardy fellows.

They seem always to have carried up with them materials for building a head-quarters hut, as well as a number of smaller outposts. We only read of two stations as consecutively inhabited for more than a single season—those at Whales Point or Keilhau Bay on Edge Island, and at Fairhaven. At Whales Point the huts were frequently rebuilt on slightly different sites, and it may have been the same at Fairhaven. The first work of every expedition, whereof we have record, was to build its Isbuschka, headquarters, or "establishment"; the next, either to build or to find outpost huts, often at considerable distances away. Thus outposts of the Whales Point Isbuschka were at Gotha Cove, Disco Bay, and Cape Lee as well as on the east shore of Decrow Bay and south-east coast of Edge Island. There were also huts on Ziegler Island, Andrée Island, and others of the Thousand Islands, though some of these sites were occupied as head-quarters. The outpost huts were seven

¹ Erman's *Archiv*, Vol. XIII. (1854), p. 261.

or eight feet square. The materials for them were carried along the shore in boats, or on hand-sledges, and set up in suitable positions. They were provisioned with food and fuel for the two or three men who were to occupy each of them.

These miserably small huts, says Charitonow, rocked with every wind. Their interior presented a very luxury of dirt. "Reindeer and other fat stewing on the fire diffuses an intolerable smell; hides hang in the Isba to dry, and the whole floor is covered with reindeer skins. Added to this in the dark winter time, an oil-lamp, fed with fish blubber, burns day and night. It is therefore scarcely to be wondered at that occasionally whole crews fall sick and die of scurvy. The business of a trapper begins with the hunting of the reindeer. From St John's Day to that of SS. Cosmo and Damian (27 September), they strive to lay in a large store of reindeer-flesh; the fat and hides are the property of the owner of the ship, but the flesh forms their winter food. From SS. Cosmo and Damian's Day to the Purification of the Virgin the sun never shines in Spitsbergen.

"It will now be asked how the trappers employ themselves during the winter. Can you picture to yourselves pale, emaciated men, with dull, unillumined eyes, sitting in a damp barrack, lighted by an oil-lamp? Such are Archangel trappers in Spitsbergen during the long, dark night of winter. Like automata, each one ties a rope into an endless number of knots, and again unties it, and thus, now tying the knots, now undoing them again, spends nearly half the winter. At first sight, this pastime must seem strange, even ludicrous, but for the trappers it is a serious occupation. Transported to the neighbourhood of the North Pole, about 330 miles away, not only from home, but from *terra firma* (that is to say the North Cape), they all suffer more or less, in summer as well as in winter, from scurvy¹. According to the reports of the trappers, the climate of Spitsbergen develops this sickness in an incredible way. There is a saying that, 'When one sleeps soundly twice succes-

¹ Russian peasants did not take scurvy so easily as men from Europe, because their normal food was better adapted to resist it. The nature of their food at this time, its method of preparation, and its antiscorbutic properties are described by Dr Matthew Guthrie of St Petersburg in *Philosophical Transactions*, Vol. 68 (1778), pp. 622 *et seq.*

sively, scurvy is present.' It is further said that on this island man is overcome with an irresistible inclination to sleep; so in order to counteract this tendency, the trappers tie ropes in knots, and then undo them again. They unpick the sheep's-wool patches of the halfskins, and then sew them together again. They are very particular that this is done continuously and without intermission. Only five hours out of the twenty-four are devoted to sleep in Spitsbergen. This accounts for the apparently purposeless occupation just described.

"Five years ago a story was told from Denmark to Archangel, that in one encampment the bodies of eighteen men had been found, disfigured by scurvy and stiffened with cold. In Spitsbergen this is no rare occurrence. The old trappers relate that scurvy goes about there visibly, that is, in human form. It is an old woman, the eldest daughter of King Herod. She has eleven sisters, some of whom concern themselves with spreading scurvy over the island, whilst the others entice away the hunters in order eventually to lead them to destruction. The old woman and her sisters often appear to the men in stormy weather, when the wind whistles through the rocky mountains of Spitsbergen. They are seen then illumined by the pale glow of the Northern-lights, in which the eddying snow whirls through the air. They are heard chanting an awe-inspiring song, 'Here are no Church hymns, no ringing of bells. Here all is ours.'

"According to the assertions of the trappers, the sisters of the old woman are of dazzling beauty. They often assume the form of the women dear to the trappers—their wives or betrothed ones, left behind on the Dwina—and appear to them in that form in their sleep. The enraptured hunter, wishful to prolong the sweet vision, withdraws from his comrades into the interior of the country and sleeps, lulled by delightful dreams. This, it is said, is the beginning of scurvy. The hunter's mates, observing his frequent absence and strange lethargy, do their best to re-arouse his relaxed energies, to which end they employ very strange means. They bind the sufferer firmly by his hands to the middle of a stake of a suitable length, which is grasped at each end by four sturdy Mujiks, and pulled

along by them at a running pace. The unfortunate patient, to avoid being dragged along the ground, is compelled to move his swollen legs with a tremendous effort. For an hour's sweet sleep he is ready to offer all he has in the world. He utters a cry of pain, and implores his tormentors to kill him outright, instead of torturing him to death. However, after two or three turns tied to the stake, he begins to feel better, and no longer begs his comrades to kill him, but entreats them to persevere with their efforts to restore him. Sometimes they take the sufferer to a high cliff, and hurl him thence into the snow. The unfortunate man only extricates himself from the deep snow by a great effort, but after three or four neck-breaking falls of this sort, he is on the way to recovery.

"On the conclusion of the hunt, the trappers assemble at the Isbuschka, to hand over their booty to the skipper. When they have settled their account with him, they go to the southern shore, to gaze in the direction of home, and to pass the time gossiping. Their speech becomes fitful because of the sound of a song which seems to come across the ocean. They look at each other with surprise; but, before they have recovered from their astonishment, there suddenly flies past, close to them, a large twelve-oared shallop, which they distinctly recognise as the flight of the terrible old woman, who, with rudder in hand, sits in the stern of the shallop. Her sisters stand by her side, rowing merrily, and so beautifully clad and so lovely that one would fain leap from the shore into the boat to them. 'I will shoot the old woman. My gun is doubly charged. What do you say to that, skipper?' calls out one of the hunters, but, whilst looking round for the shallop, he dropped his gun. The lock struck the ice, and was broken. To so great an extent had the beauty of the rowing maidens disturbed the minds of the hunters. 'Push off, sisters,' said the old woman, 'here are tobacco and sour cranberries' (a recognised antiscorbutic), 'here we have nothing to seek.' And the shallop disappeared.

"We may be allowed to relate another story about these witch-sisters that can be heard from many an old trapper. 'Forty versts east of the principal encampment stands a wretched hut, knocked together out of planks, and shaken

by every gust of wind. In this hut were two trappers, the elder of whom, in the last stage of this island's peculiar sickness, prepared himself for death, and whispered his confession to his companion, a youth barely twenty years of age, urgently beseeching him to bury him, when the end arrived, with prayers, and on his return home to have a mass said for him. For the trappers who die in Spitsbergen, Novja Zemlja, and other uninhabited islands of the ocean, never omit, if no priest is present, to confess, before death, to a comrade. Even when no one is with the dying man he confesses his sins to the earth. 'Mother, moist Earth, I have sinned in this and in that before God. Receive my sinful body into thy keeping.'

"The night passed. In the early morning the youth carried the blue, swollen corpse of his comrade out of the Isba and buried it by scraping the earth aside. After the burial, he returned to the hut, and lighted the Jirnik. Alone in the Isba, fear came over him. How should he drive away evil thoughts? Fortunately he possessed the art of playing the violin. He extinguished the Jirnik, laid down on the bed, and began to play and sing. Hardly had the last sounds of his song died away, when he heard in the hut stamping as in a dance, the clapping of hands, and laughter, but such beautiful, childish laughter, that the youth let his bow fall from his hand, and his heart stood still. The dance continued, and the laughter sounded ever louder and louder. Composing himself, he struck a light, but hardly had the sparks come from the tinder, when the dance and laughter stopped. He found himself once more alone in the Isba, whilst the storm howled through the waste of snow, and the dismal feeling of loneliness preyed upon him more than ever. 'Very likely,' thought he, 'Death is now looking in at the window, and beckoning to me.' In order to regain courage, he once more seized his violin, but first placed some fire in the birchwood Tujes, a round vessel with a wooden bottom and lid. 'As soon as I hear anything,' thought he, 'I will raise the lid, and the stranger shall not escape me again.' Then he commenced singing once more, and again he heard the dancing, hand-clapping, and such bewitching laughter that he no longer waited, but quickly raised the lid of the Tujes, and—before

him stood a maiden with sparkling eyes. The maiden looked shyly at him, but the youth trembled all over. He could not look away from those eyes, which sparkled like diamonds. The maiden dropped her head bashfully, and her long fair hair fell over her face. The hunter recovered himself at last. 'Do not be alarmed, fair charmer,' said he, 'only once will I look into your eyes, even if it should prove my death.'

"Encouraged by these words of the youth, the beautiful maiden raised her head, and looked fixedly at him. 'Be it as you will,' said she, 'since you have once looked on me, you can compel me to remain always with you. Neither will it be harmful for you to live with me, only you must never leave me, and never go away from here, otherwise misfortune will overtake you. I am powerful, and shall never let you leave me.' Either she was the good sister of the old woman, or the youth had pleased her. She tended him carefully, and guarded him against scurvy and every danger. When he went out hunting, she sent so many stone-foxes into his traps that he could hardly drag them back to the hut. If he wanted spirits to drink, before he had expressed the wish, there stood in the *Isba* a barrel of rum. In short, he had everything that his heart desired—enough to eat, enough to drink, a life without work, and, added to this, a beloved one whose like he could not have found in the whole wide world. But in spite of this, the hunter was drawn in thought over the sea to Russia, to his native shores. The longer he lived with the beautiful stranger, the more she became a burden to him. At last he began to fear her, whilst she always became more loving and more tender, and would not let him go from her side.

"One day she came running into the *Isba* more quickly than usual. 'Rejoice, *Wasilji*,' said she, 'we shall soon have a son. Do not leave me, dearest. You have become melancholy. You turn away from me, and do not listen to me. But I am always the same.' 'Listen, beloved one,' began *Wasilji*, 'when I first saw you I thought to live with you for ever, but now—I am drawn away to Russia.'..... One day, when the wind blew strongly from the north, the sailors hastened to fill the *Lodja* with furs, blubber, eider-down, and the like. The *Lodja* was loaded, and the sails

were hoisted, and like an arrow she flew towards the North Cape. They had hardly gone ten versts from the Island when the crew suddenly heard such a piercing cry, that it deafened the storm of wind in the sails. They then saw something flying through the air on to the Lodja. It fell beside the helm of the Lodja, and was recognised as the child of Wasilji and the sister of the terrible old woman."

The old woman was responsible for many a terrible tragedy during the long Spitsbergen winters. Here is a story which was told to Mr Lamont by one of his crew, but he does not state the year in which it happened¹.

"During the summer of the year in question, a prodigious quantity of heavy drift-ice surrounded Whales Point and all the southern coast of East Spitsbergen. The men belonging to the Russian establishment had all come in from the various outposts, and were assembled at the headquarters, waiting to be relieved by the annual vessel from Archangel. By a concurrence of bad fortune this vessel was lost on her voyage over, and was never heard of again. The crews of the other vessels in Spitsbergen knew nothing of these men or, if they did, they naturally supposed that the care of relieving them might safely be left to their own vessel, as nothing was yet known of her loss either there or at Archangel. The ice in the summer months prevented any vessel from accidentally approaching Whale-fish Point; and no one went near it until the end of August, when a party of Norwegians, who had lost their own vessel, travelled along the shore to seek for assistance from the Russian establishment; but on reaching the hut they were horrified to find its inmates all dead. Fourteen of the unhappy men had recently been buried in shallow graves in front of the huts, two lay dead just outside the threshold, and the remaining two were lying dead inside, one on the floor and the other in bed. The latter was the superintendent, who had been able to read and write; and a journal lying beside him contained a record of their sad fate.

"It appeared that early in the season scurvy of a

¹ Lamont, *Arctic Seas*, p. 344. I suspect that this story really relates to the events in Red Bay in the winter of 1851-52, but I quote it as it was written, for the sake of the excellent telling of the tale.

malignant character had attacked them; some had died at the out-stations, and the survivors had with difficulty assembled at the head-quarters station and were in hopes of being speedily relieved by the vessel; but, the latter not arriving, their stores got exhausted, and the unusual quantity of ice surrounding the coast prevented them from getting seals or wild fowl on the sea or the shore. In addition to scurvy they had now the horrors of hunger to contend with; and they gradually died one after another, and were buried by their surviving companions, until at last only four remained. Then two more died, and the other two, not having strength to bury them, dragged their bodies outside the hut to await their own fate; and, when one of them died, the last man—the writer of the journal—had only sufficient strength remaining to push his dead companion out of the bed on to the floor, and he soon after expired himself, only a few days before the Norwegian party arrived. The Russians had a large pinnace in the harbour and several small boats on shore, but the ice at first prevented them from reaching the open sea, and latterly, when the ice opened out, those who survived so long were too weak to make use of the boats. The shipwrecked Norwegians took advantage of the pinnace to effect their own escape to Hammerfest, carrying with them the poor superintendent's journal, which the Russian consul at that port transmitted to Archangel."

Another terrible winterers' tale is related by Scoresby¹:

"In the year 1771, Mr Steward, of Whitby, formerly a Greenland captain, landed on a projection of low table-land, forming the S.W. point of King's Bay, for the purpose of procuring drift-wood for fuel..... Here the first wintering of the Russians, to the northward of the Foreland, had been attempted, their first hut having been built the preceding year (1770). This hut having been seen by the party in search of wood, on their first landing, motives of curiosity led them to examine it. They hallooed as they approached it; but no one appeared. The door being defended by a small open court, one of the party entered it; and, applying his eye to the hole for the latch, observed a man extended on the floor, as he thought, sleeping.

¹ *Arctic Regions*, I. 145.

Receiving no answer to their shouts, they at length opened the door and found the man a corpse. His cheek, which was laid on the ground, was covered with a green concretion of mould; and his covering, besides his clothes, was only a Russian mat. Several jackets and other articles of clothing were seen on a bench, on which the inmates appeared to have slept; but no other individual, living or dead, was observed. It was supposed that his companions had shared the same fate, and had been buried by him, who, as the last survivor, had no one to perform the same kindly office on himself. The yawl belonging to the sufferers was found hauled up on the beach; it was fully equipped with oars, together with mast and sail."

Scoresby gives the following description of a hut on the north-west point of Prince Charles Foreland, which he visited in the year 1809¹. He says it was the most comfortable Russian hut he saw in Spitsbergen.

"It was built of logs of half round timber, the original trees being slit up the middle: the round sides were put outwards, and the ends of the timbers, forming two adjoining sides, stretched beyond the corner, and, being notched half way into each other, formed a close joint. The logs were placed horizontally, and were built into a rectangular form, about 14 ft. long, 10 broad, and 6 high. The seams were caulked with moss. Near the ground were two windows, of six panes of glass each, one on the east side, the other on the south. The roof, which was flat, was formed of deals and loaded with stones. A barrel without ends composed the chimney. To the north end of the building was attached a small square court, open at the top, having a doorway on the east side of it, communicating with and affording some shelter to the door of the hut." From the condition of the interior, which was stocked with utensils and food, including twenty ducks in a state of putrefaction, it was concluded that the "hut had been occupied by some Russian hunters, who, from the quantity of provisions left behind, seemed to have either perished prematurely, or had some intention of returning." As this hut was smaller than the usual head-quarters establishment, it was probably an out-station of the King's Bay or Cross

¹ *Arctic Regions*, I. 141.

Bay head-quarters ; but it was much more solidly built than most out-stations of which we have record.

The Russian head-quarters on the east shore of Mauritius or Dutch Bay¹ were visited by Bacstrom in 1780, and found in full occupation².

"The hut consisted of two large rooms, each about 30 feet square, but so low that I touched the ceiling with my fur cap. In the middle of the front room was a circular erection of brickwork, which served as an oven to bake their bread, and bake or boil their meat, and at the same time performed the office of a stove to warm the room. The fuel employed was wood, which drives on shore plentifully in whole trees stripped of their branches. A chimney carried the smoke out of the roof of the hut ; but, when they wished it, they could, by means of a flue, convey the smoke into the back room, for the purpose of smoking and curing their reindeer flesh and tongues, bears' hams, etc. Round three sides of the front room was raised an elevated place of about three feet wide, covered with white bear skins, which served for bedsteads. The captain's bed-clothes were made of white fox skins sewed together ; the surgeon's were the same ; the boatswain, cook, carpenter, and the men had sheep-skins. The walls inside the room were very smooth and white-washed ; and the ceiling was made of stout deal boards, planed smooth and white-washed.

"The rooms had a sufficient number of small glass windows, of about 2 feet square, to afford light : the floor was hard clay, perfectly smooth ; the whole hut was nearly 60 feet in length and 34 wide outside, and was constructed of heavy beams cut square, of about 12 inches thick, laid horizontally one upon the other, joined at the four corners by a kind of dove-tailing, caulked with dry moss, and payed over with tar and pitch, so that not a breath of air can penetrate : the roof consisted of thin ribs laid across the beam walls, and 3-inch deals nailed over them, so that you could walk on the top of the house. The roof was caulked and tarred, and perfectly tight. This is the manner of

¹ *Vide* Passarge, *Sch. Exp.* p. 356.

² In Pinkerton's *Collection*, Vol. I. pp. 614-620.

building houses in the country in Russia, particularly about Archangel."

Of all parts of the Spitsbergen archipelago the one most frequently chosen by the Russian trappers was Edge Island and the small islands adjacent to it. The favourite spot for the head-quarters was near Whales Point, and it is to this that Charitonow's description applies. In the early years of the 19th century the life of the Russian winterers in the far north appears greatly to have interested certain people dwelling in civilized and comfortable regions. Col. Beaufoy, as we have seen, made somewhat minute enquiries into their mode of living, and I might quote a list of other writers, such as Pennant, who devoted attention to it. One such amateur was a certain Herr von Löwenigh, burgomaster of Burtscheid, in the Rhineland. In 1827 he was travelling in Finmark, where he met the Norwegian geologist Keilhau. At Hammerfest they also met two Englishmen, Dr Everest and another. All were anxious to visit Spitsbergen, but the Englishmen cried off when they saw the dirty little sloop they would have to sail in.

Keilhau and Löwenigh accordingly sailed together, the former to make geological investigations, the latter to examine a Russian hunters' establishment. They tried first to reach Smeerenburg, in hopes there to meet Parry's expedition returning from the north; but storm and ice drove them westward. They could not even enter Ice Sound. At length, on the morning of September 3rd, the fog lifted and showed them South Cape close at hand, and some of the Thousand Islands and Hope Island with its snowy mountain backbone very far away, but quite clear. They sailed slowly towards the Cape, and ultimately rowed ashore on an island in a small bay below a low cliff. On the top of the cliff stood two high Russian crosses, which were very old. A third lay on the ground. There was a stove on the flat ground below them, but no hut, and the place did not seem to have been inhabited for a long time. From South Cape they sailed across Wybe Jans Water to Decrow's Sound. They entered Keilhau Bay, in its north coast, near Whales Point. Within the bay to the eastward is a little cove admirably adapted to harbour small vessels. A tongue of land separates Decrow's Sound from Keilhau Bay

and the cove. The Russian establishment stood on this peninsula before a line of low cliffs.

"It consisted," writes Keilhau, "of two separate dwelling-houses with several dependant buildings, all but two of which were built of solid timber, very differently from the big plank-sheds set up by the Russians on West Spitsbergen. The biggest of the dwelling-houses was about 12 ells long, 8 broad, and 3 or 4 high. The roof was covered with a thick layer of earth and stones, and was almost flat. The floor of the room was the bare ground, with a bench all round and a gangway in the midst. Low above the bench were small windows, now without glass. In one corner of the barrack was a big stove and in the other a little cupboard, with the date 23 July, 1825, written on it in chalk..... The door of the dwelling-house gave access to a big porch with a plank floor. Another door led from the porch to a long room with a carpenter's bench, apparently a work-room. This was connected on one side with a little raised shed, a kind of store-room, and on the other with a bath-room, warmed by the closed side of the barrack's stove.

"The second dwelling-house lay about 60 paces from the first and was similar in arrangement but much smaller. Over the entrance were inscribed these words, *Si ja isba staroverska*, meaning 'This house belongs to them of the old faith.' Both here and in the big house we found a number of household implements, etc., such as *ski*, stoneware pots and lamps, netting needles, playing-cards, a draught-board, shoe-lasts (one for a child), and a small wooden implement on a long handle to serve the purpose of a scratching machine. Against the second house was a newly-built porch, used also for a store-room. A loop-hole was contrived in its outer door to spy the polar bears, which pay frequent visits to the establishment. A small hut stood alone by itself a few paces away. It contained a stove built of loose stones, and was the bath-room 'of them of the old faith.' We lived in it during our stay because it was most free of ice and had an almost perfect window. Twenty yards from the bath-house lay a fresh-water pond, with a plank-quay indicating the watering-place.

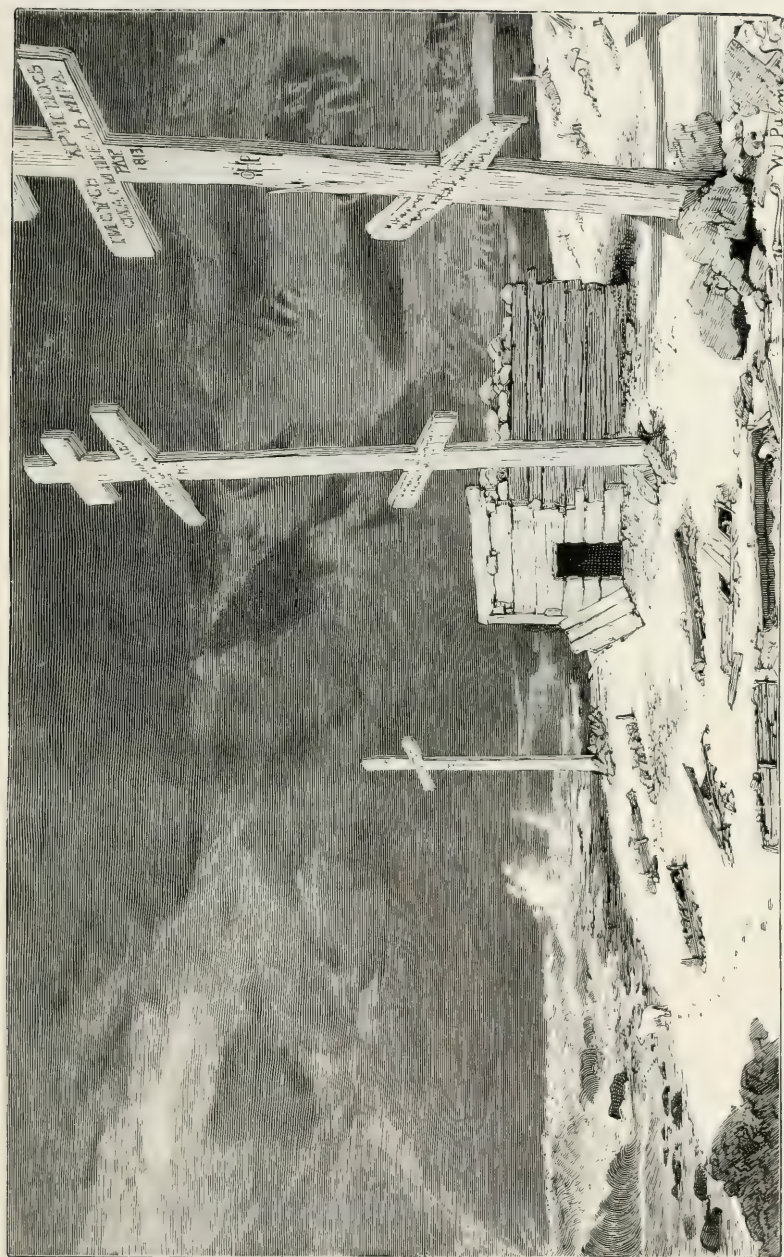
"Behind, between the houses and the cove, stood five

crosses, 5 or 6 ells high, ornamented with quite tasteful carving, and furnished with dates and inscriptions, such as 'This Cross was set up for the orthodox Christians to God's honour, 20 Aug. 1823'; another, 'This Cross was set up for the orthodox Christians to God's honour by the foreman Ivan Rogatschef in the year 1809.' One date seemed to be 1826. These crosses are commonly set up by the trappers at their arrival for a lucky hunting, or at their departure for a lucky voyage home. They were no small adornment to the place. Eight or nine old house-sites in the neighbourhood showed that other buildings had stood there. Some small raised mounds amongst these sites seemed to be graves. Round about the houses lay skeletons of bears and walrus, and many horns and bones of reindeer. There were also some boats, timber, and a quantity of casks. In many places in the neighbourhood we found ruins of small outpost huts at points good for hunting, which were daily visited by the hunters from headquarters. We also found numbers of traps for foxes and bears..... A high watch-tower, built of loose stones, stood on the highest and most free-lying point of the establishment's peninsula." From this tower Keilhau had a splendid view of the east coast of the main island.

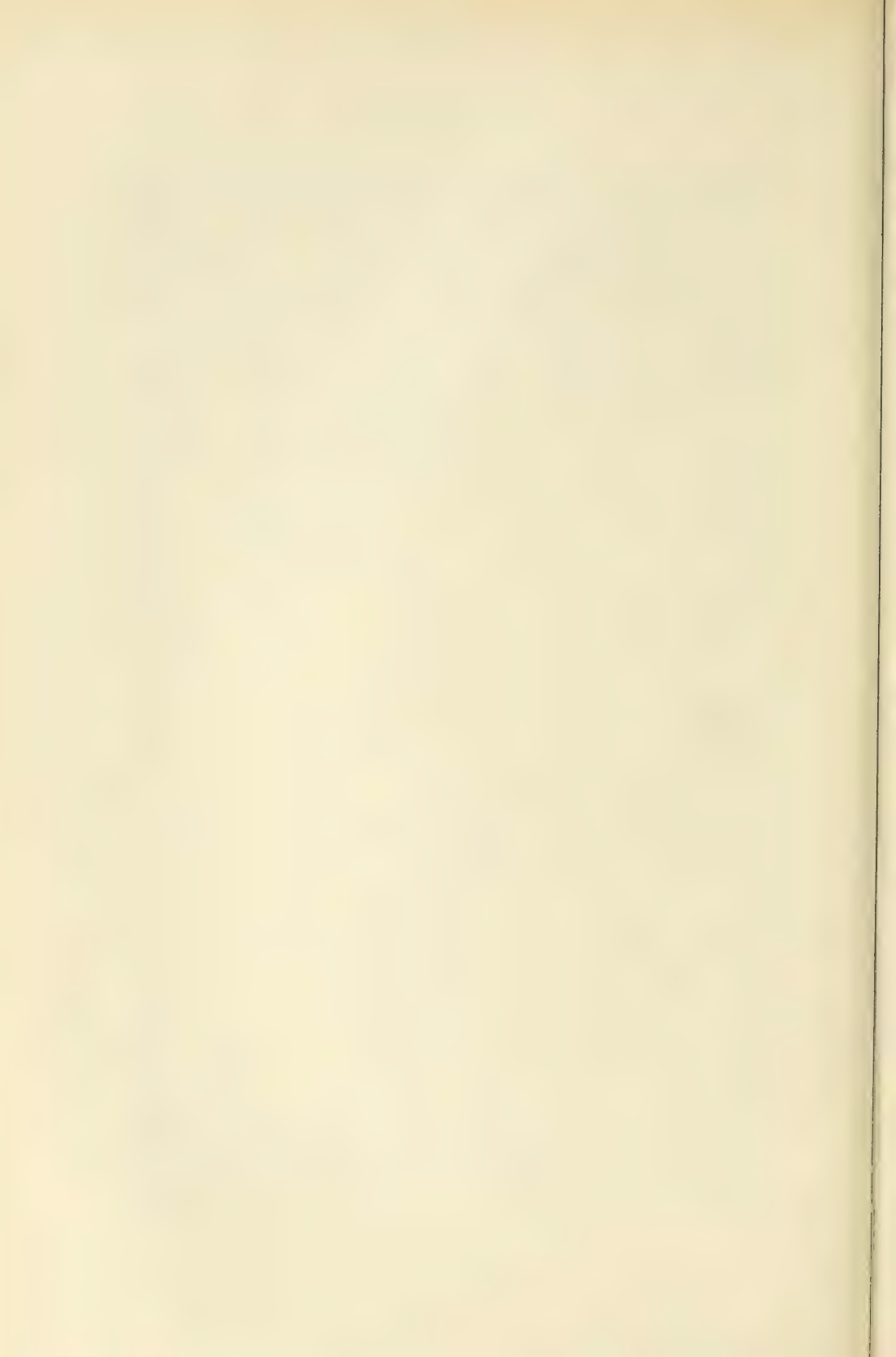
The establishment seems to have been inhabited for the last time about 1850, when it is said that all the hunters died of scurvy. The place was visited and photographed by Lamont in 1858¹. Only the huts of "them of the old faith" were then standing. "Some of the weapons, cooking utensils, and ragged fragments of clothes and bedding, lay scattered around. A great many skulls and bones of bears, foxes, deer, seals and walruses also, testified to their success as hunters. We likewise found a curious implement, like a miniature wooden rake, the use of which was a complete enigma to me, until our pilot explained that such contrivances were commonly used by the Russians when they suffered from entomological annoyances."

There was a 24 ft. square hut, off which "was a small wing with a brick fireplace, evidently used as a kitchen. Another hut was a store-house, and a third a bath-house of a rude description." The roof of the main hut had fallen

¹ Lamont, *Arctic Seas*, p. 346.



The Russian Huts in Keilhau Bay, from Lamont's 'Yachting in the Arctic Seas.'



in. "On a gentle eminence, two or three hundred yards from the huts, they had built a sort of look-out house of loose stones..... On a piece of level ground, not far from the huts, they had kept themselves in exercise by playing a game resembling cricket, as was evident by the bats and rude wooden balls they had used, still lying on the mossy ground.

"Altogether there was something inexpressibly sad and desolate about the remains of this unfortunate establishment: and by the rude Norwegian sealers the place is regarded with a degree of superstitious awe, which, perhaps, accounted for the huts being in such good preservation."

There is yet one more little Russian hut of which a description has been preserved. It stood on the east shore of the remote Wijde Bay, close to the cove called Aldert-Dirkses Bay, where the Swedish expedition of 1861 saw it. It stood beside a little brook that emptied into a small, almost land-locked lagoon. The brook drained a lake, which in its turn was fed by a stream draining a higher lake enclosed by rocky walls. In all there are seven lakes close together in this neighbourhood. Flowers blossomed around them in the brief summers, and they formed a foreground to beautiful views in all directions, up, down, and across the gulf. The hut was 10 ells long, 4 broad, and less than 3 high. Its roof was flat. Within, it was divided into two rooms. A door in the north-west corner led to the outer room, full of casks and boards. From this a low door led to the inner room. There was a bench round the walls, a small window on the south, and a stove to the left of the door. Some implements were lying about, and there was a notched stick that had been used as a calendar. It showed that twenty-six weeks had been passed. The date 1839 was carved on a bench. Evidently this hut had served as a head-quarters in that year, and not been occupied since.

There must have been a strange fascination about an arctic hunter's life for the people of the White Sea, or it would not have been possible to recruit them year after year, in spite of all the tragedies, frost-bites, and narrow escapes that they witnessed or experienced. One year eighteen men were sent forth. Twelve of them died and

only six returned home after terrible experiences, yet every one of these six was ready to go back the first time he had a chance. Presumably the excitement of the chase was the great attraction. When a company had arrived in Spitsbergen, set up their head-quarters, and established their outposts, they began by hunting reindeer. To help them in the chase they used "trappers' dogs," a breed developed at Archangel. These dogs were also used to drag small sledges¹, and to give notice of the approach of polar bears, which were frequently attracted to the huts by the smell of reindeer offal, and other filth that pervaded them. Sometimes the bears even tried to break into the huts when the men were asleep. The bears were afraid to cross the track of snow-shoes, but would attack an unarmed hunter, so that a man travelling alone always took his dog with him or carried a bundle of burning shavings. The dogs delighted in reindeer hunting. "Neither cliffs nor precipices restrain them. Barking with all their might, they pursue the game, whilst the trapper follows on snow-shoes. It is not an unusual event for both trapper and dogs to find their graves in an abyss. Still oftener the dog disappears into a cleft of the rock, in the heat of the chase, not perceiving the danger. The hunter then wanders round the icy chaos, listening to the howling of the wind in the mountainous ravine, and believes that he hears the barking of his dog, until he at last succeeds in once more reaching his place of encampment, where he blames 'the Spitsbergen Dog' for everything."

The "Spitsbergen Dog" was a mythical beast, devoutly believed in by the Russian trappers. They said he was a proud and malignant creature. It was to pacify him that on their first landing they slew the male reindeer, as related above, and flung his body on to the rock named "The Capless Lout's Head." He was said to live in the wild ravines of Spitsbergen, accompanied always by one of the Old Woman's sisters. Sometimes he was seen from the shallows. He rushed like the wind over the surface of the sea. He was as fond of drink as a trapper. When his supply of spirits ran out he rushed away to the North Cape, there to await the coming of the ships. Sending a violent

¹ Beaufoy's *Enquiries*.

south wind against them, he shattered their masts and wrecked the vessels. Then he towed away the floating rum-casks to his arctic island.

Somewhere in the interior of Spitsbergen or Edge Island the trappers knew of a large cavern. This they said was the Dog's bath, where he bathed on Feast-days. It was believed that the bath was heated artificially, and men related that they had found the cave warm and the embers still glowing. To win the goodwill of the Spitsbergen Dog a man must go alone at the time of the new moon to a cave in the "Capless Lout's Head." At the entrance of the cave he must draw his knife, trace with it a circle round him on the ground, and plunge the knife into the earth outside the circle. He and he only would then hear a loud barking, and, at the midnight hour, a huge black dog would rush into the cave. The trapper, following the barking, still audible only to him, would then be able to find and shoot so many reindeer that it would be impossible for him to drag them all to his hut. The dog would also drive an innumerable quantity of foxes into the traps of a man to whom he was propitious, would cause whole flocks of geese to pass within easy range before the muzzle of his gun, and would show him the well-stored nests of countless eider-ducks.

But we must return to the ordinary avocations of the hunters. In some places, such as Cross Road and Green Harbour, they were provided with long nets which they used for capturing white whales, in the event of a school approaching their station in the open season of the year. They also killed seals if the chance offered, but they did not go out of their way to hunt them. As the dark days approached they set traps for foxes, sometimes as many as 100 traps to a verst. This snaring was only practised in the winter, when the weather was mild enough to enable the traps to be reached without danger. Sometimes in hard weather the traps could not be inspected for a month or more at a time.

The north wind in winter was a dreadful trial to the trappers. Their huts were generally placed beneath a cliff that sheltered them from it¹. "They say," writes

¹ Pennant, *Arctic Zoology*, p. 147.

Charitonow, "that when it blows, it is impossible to go outside of the Isba. If a hunter finds himself, at such a time, 10 versts from his hut, nothing is left for him but to lie down and die of cold. The stone-foxes are only caught in calm weather, when the moon is shining, and the stars are sparkling. In the dark period of the year, reindeer also are shot, but in winter-time reindeer hunting is as difficult as it is dangerous: difficult, because one must be specially skilled to follow them over a more or less hilly, undulating plain in snow-shoes; dangerous, because the eager hunter, heated by rapid movement through the strong wind, either lies down tired and is often frozen to death, or else falls headlong over a mountain precipice of unexplored depth. In the winter, therefore, reindeer hunting is rarely pursued. It is an autumn pastime.

"It is thus seen that life, during the winter, does not offer much variety to the trappers in Spitsbergen. Of course they also shoot polar bears now and then, but only when they chance to come upon them. They do not look for these animals on the snow-covered coasts of the island, but if one comes within range of their guns, it helps to increase their winter's store of food. As soon as ever a ray of sunshine shows itself on the tops of the mountains—this happens at the time of the Feast of the Purification (Feb. 2nd)—the trappers awake as it were from their winter's sleep, and, after offering up a prayer, push off from the shore in their shallop, in order to catch sea animals. When one beholds these wretched shallops one trembles for the hunters. A miserable boat, $1\frac{1}{2}$ to 2 Sajene long, manned by 12 men, and steered by a Mujik, often proceeds fifty versts out to sea. If a strong contrary wind blows, the bold hunters must either perish in the waves, or be crushed to death between the ice-floes!

"But the Spitsbergen voyagers do not allow themselves to be so easily intimidated by dangers. When I asked a Mujik whether it was not worth considering, that, by venturing in a boat 50 versts and more from land, he was risking his life, the grey-bearded old man answered me in the usual laconic manner of the peasants of this government, 'It would require very different waves to make the Spitsbergeners fear the ocean.' The trappers themselves

relate that the sailors sometimes find shallops near Spitsbergen adrift at sea, with their crews frozen to death. 'What is done with them?' I asked. 'The bodies are thrown into the sea, and the shallop is repaired,' was the answer.

"On setting out, these hardy hunters provide themselves with a week's supply of bread, even if they only intend staying out for a day. When the north wind blows, they warm themselves by rowing, and relieve the skipper in turns. In this way they sail round the bays, and shoot many kinds of sea animals, walruses, hares (?), seals (*phoca vitulina*), and others. White whales are only very occasionally killed. One must be an excellent shot to hit these animals, which come up out of the water and disappear again in an instant. The trappers cannot take out with them the large nets with which they are caught in other places. Polar bears also are shot on these voyages, although they are extraordinarily courageous in the water, whilst on land they flee before the distant baying of the dogs, and will not venture to cross the track of a snow-shoe. After the first bullet wound the bear makes straight for the shallop, and woe to the hunters if they do not get away quickly. Putting his paws on the edge of the boat, the bear turns it over, and then this gentleman of the polar sea knows very well how to be ready for the trappers.

"The fur-hunters relate that a party of trappers once brought home a load of whales' teeth, although none of the men could boast of having killed a single whale; but in an inlet of the island they had found 30 whales, not long dead, lying together in a heap. Schools of white whales thus stranded and killed have been found more than once on the shores of Spitsbergen even in modern times¹."

After a year spent in the bleak regions of the north, the return home was a joyous event, thus described by Charitonow from his own observation: "Do you see that Lodja steering towards the harbour on the Dwina? On the deck stand eight Moujiks, who snap their fingers, and smack their tongues, and whistling and laughing strike up a song. In the fore-part of the Lodja is seen an old man with a grey beard, who holds a cap in one hand, and stretches both

¹ See Nathorst, *Tva Somrar*.

hands out over the water, not singing meanwhile, but rather howling and roaring, interrupting the singing of the others with impassioned voice. The crew comes from Spitsbergen. The singing Moujiks are happy trappers. In the middle of September they generally sail away from the island. They are all neatly, almost elegantly dressed. Only one of them is conspicuous by the simplicity of his costume. This is the skipper, who, instead of making a show with a fine smock frock and red Norwegian belt, keeps his money in his pocket.

"The arrival of the trappers is quickly made known in the villages at the mouth of the Dwina. After they have cast anchor in the harbour, and offered up a prayer of thanksgiving, the crew, led by the skipper, hasten to the ship's owner. This latter has flounders, salmon, and other delicate kinds of fish brought, as well as a large cask of brandy, and invites the voyagers to a feast, whilst his labourers unload the lodja. The repast and the brandy drinking last until every one of the guests is lying under the table. After they have slept themselves sober, they begin again, and do not stop until the cask is emptied. When this is accomplished they go off, satisfied with having seen the bottom of the cask. After the trappers have received their pay from the ship-owner, they return to their own villages, and live, as long as the money lasts, revelling. When their money is spent they all go back to their former work, and resume their normal activity."

The trappers were very brave men, as the people of this country generally are. Pennant¹ records that they were excellent marksmen. "In presenting their piece," he says, "they do not raise it to their shoulder, but place the butt-end between their arm and their side, fixing their eye on the object toward which they direct the barrel." Charitonow says that they were an honest people. "Each year a not inconsiderable portion of the gains they bring home from Spitsbergen is presented to the church of the parish to which they belong. Brandy, and brandy alone is their ruin."

The mortality amongst the trappers must have been very great, even when scurvy did not sweep them away

¹ *Arctic Zoology*, p. 147.

wholesale. Few were frozen to death, says Pennant, but many were badly frostbitten, so as to lose their toes and fingers. When a trapper died in Spitsbergen his body was laid in the ground, if possible, or hidden in some cleft in a rock. Bodies found in the snow or on the surface of the ground were believed to be those of heretics. A trapper told Charitonow that he had himself found such a body in a mountain gorge. "There lay a Mujik with a red beard, clothed in a blue smock-frock. I pressed his forehead with the butt-end of my piece and it fell to pieces like dry wood." In the neighbourhood of almost every Russian hut one finds graves to the present day, but it is difficult to distinguish between them and graves of whalers and seamen, of which there are countless multitudes all round the Spitsbergen coasts.

At the risk of prolixity I will here set down the geographical position of all the Russian huts on Spitsbergen, whereof I have been able to find record, beginning on the east side of Wybe Jans Water and going westward round the main island.

On Anderson's Islands near Barents Land there are traces of a settlement, as I was informed in 1896 by a Norwegian who had seen them. The great settlement in Keilhau Bay and others on neighbouring islands have been mentioned above¹. Heuglin records the ruins of a Russian head-quarters on Andrée Island, where a well-preserved bath-hut, built of blocks of hyperite, was standing in 1870². A head-quarters on Ziegler Island was visited by Lamont³.

Of Russian huts on the west shore of Wybe Jans Water I can find no record, though doubtless several existed. There was an important head-quarters on South Cape or one of the neighbouring islands. Scoresby, Keilhau, and Lamont saw huts there; one dated 1784. It was at this place that in 1818 the winterers slew no less than 1200

¹ See Passarge, p. 453; Lamont's *Sea-Horses*, pp. 104, 105, 109; and other authorities quoted above.

² Heuglin, I. p. 256.

³ *Arctic Seas*, p. 348. "The ruined huts still remained. There had been a large, oblong building and two smaller ones, placed back to back. The walls, 4 ft. thick, filled in with rubble, and made tight inside with plaster and moss, seemed very old; the plants inside grew as luxuriantly as outside. Around were strewn loose timbers and whales' bones." This may have been the ruin of a Dutch or English whalers' cookery.

walruses besides quantities of other beasts, an unusually successful voyage¹. At the entrance to Horn Sound, apparently by Isbiorn Haven, was a head-quarters, whereof well-preserved remains were seen by the Swedes in 1861 and 1864², as well as many skeletons. There were two outpost huts for five men each and ruins of others in different parts of Horn Sound. I myself saw the remains of a Russian hut on Hofer Point in 1897³. There was also a settlement on the Dun Islands.

Bell Sound was a great Russian centre⁴, and various head-quarters were established on its shores at different times. The most frequented situation was the west side of Recherche Bay, four or five miles in from its mouth. On Axel Island was another and older head-quarters. Outposts are recorded in Low Sound, Sardam Bay, and at the mouth of Bell Sound, probably on Low Ness⁵.

In Ice Sound the chief settlement was at Green Harbour and westward of it in a small valley, containing two lakes, which is still called by the Norwegians Russekeilen. Here Starashchin died. A little cove close to Green Harbour was a great place for catching white whales. In many parts of Ice Sound the remains of huts are still visible. In 1896 we found traces of a hut on the low promontory between Dickson and Ekman Bays. Another stood on Deadman Point. Heuglin records seeing the ruins of many Russian huts at Advent Point, as well as a Norwegian hut which was still standing and occupied in 1870. The Tourist-hut was built on the site of it in 1896. A few miles west of Advent Bay, Heuglin also found many traces of a big Russian settlement and a number of traps⁶.

Keilhau knew of a great Russian head-quarters on the south point of Prince Charles Foreland, where were many great crosses and graves. Scoresby saw a hut on the north-west point of the Foreland, as related above. There were other huts down its east side. In 1827 some Russian

¹ Keilhau, p. 236; Lamont's *Sea-Horses*, p. 21, etc.; Scoresby's *Arctic Regions*.

² Passarge, pp. 356, 448.

³ See my book, *With Ski and Sledge*.

⁴ They called it Klanbay, or Klanbaiskaja Guba, for Klok Bay.

⁵ See Keilhau; also G. F. Müller, p. 17.

⁶ Heuglin, i. 273, 280.

huts were still standing in St John's Bay¹. There appears also to have been a settlement or outpost in English Bay.

King's and Cross Bays were much frequented by Russian trappers. Scoresby records a hut on Quad Hook. I found the ruins of one at Coal Haven in 1897². At Cross Road was a great Russian head-quarters afterwards used by Norwegians in 1822. In Hamburg Bay was an outpost of the Cross Bay head-quarters. Beechey³ also records a head-quarters establishment there or in the neighbouring small Basques Bay. A Russian head-quarters was set up in Magdalena Bay about 1827, according to Keilhau; its ruins were seen in 1896. Beechey saw a Russian head-quarters in Robbe Bay. Fairhaven was a favourite Russian hunting ground for some years. The situation of the head-quarters seems to have been on the mainland opposite Smeerenburg⁴. It was inhabited for many seasons between 1770 and 1823.

The north coast was likewise occasionally settled on by Russian trappers in the first half of the 19th century. A great tragedy happened to a party in Red Bay in 1850-51. Perhaps their hut was the one whose ruins were visible on Biscayers Hook up to 1896. Beaufoy was informed that the Russians had frequented Liefde Bay, but that they never took their lodges beyond it, though they went in their shallops as far as North-east Land. On the west shore of Liefde Bay are ruins of a large Russian establishment. Later, perhaps, they ventured farther east in their sloops, for considerable-sized huts were built in Mossel Bay and Aldert Dirkses Bay⁵, and outpost huts existed at several points in Wijde Bay. The most remote huts I have been able to hear of were on the Ryss Islands, and Hyperite Island in Hinloopen Strait, on Cape Roos (standing in 1896), and at unidentified points on the north coast of North-east Land⁶.

The foregoing account of the doings and sufferings of the Russian trappers has been put together from a number of scattered references and incidental statements. It has

¹ Keilhau, p. 240.

² See John Laing's *Voyage*, and my *With Ski and Sledge*; also Scoresby's *Arctic Seas*, and Keilhau, p. 240.

³ p. 185. See also Keilhau, p. 242.

⁴ See Bacstrom, quoted above; Passarge, p. 356; Beechey, p. 185; and Keilhau, p. 243.

⁵ See above, and Passarge, p. 356.

⁶ Passarge, p. 356. See also my *First Crossing of Spitsbergen*.

been impossible to write a connected history of the growth and decline of this strange industry, owing to lack of materials for it. Perhaps a Russian student may some day unearth records preserved in the archives of the Monastery of Solovetskoi or some town of the White Sea, which may enable him to call back to life the strange actors in these arctic dramas, whose figures flit so vaguely across our vision in the long polar nights. The best that I could do was to compile the foregoing general account of the trapping industry, and now to complete it with brief mention, in their chronological sequence, of such events as we know to have happened in Spitsbergen to the Russian huntsmen and their Norwegian rivals and successors.

CHAPTER XX.

TSCHITSCHAGOF'S EXPEDITIONS.

AFTER the return of the castaways in 1743-1749 we hear absolutely nothing of the Russians in Spitsbergen till 1764. The expeditions doubtless succeeded one another but neither successful nor tragic issue of any is recorded. In 1764, however, Empress Catharine II of Russia sanctioned the despatch of an arctic expedition. For years Russian statesmen had been conscious of the importance of finding a sea-route to the far east, if it were possible. The North-east passage, however, seemed always to be blocked, so that it was now determined to try whether an open route might not be discoverable yet further north, by way of Greenland or Spitsbergen. It is worth notice that the various arctic expeditions sent out by different countries or societies have been different in character, according to the special industries or occupations of the sending countries or societies. This Russian expedition had to some extent the characteristics of a White Sea trappers' journey. The English expedition of Phipps was a kind of glorified whaling voyage under naval auspices, with the whale-hunting left out. The Swedish expeditions of the 19th century resembled the voyages of Scandinavian summer-season hunters in their sloops. Dr Nansen's arctic journeys were conditioned by the use of ski and were based on the ski-running sports of the Norwegian wintertide. My own explorations of the interior of Spitsbergen were the outcome of Alpine climbing and were in the nature of mountain and glacier explorations.

Those responsible for organising the Russian polar expeditions of 1765 and 1766 deemed it well to provide the

ships with an arctic base, well stored with all manner of supplies¹. Accordingly in 1764 Lieut. Michael Nemtinof and others were sent off in five small vessels to convey ten wooden huts to Spitsbergen and there set them up and fill them with stores. The huts were planted on the right hand of the entry into Recherche Bay; how far in we are not told. At that time Recherche Bay was not a hunter's station. The nearest huts are stated to have been 20 miles distant. Possibly Axel Island is meant, though that is only 11 miles from Recherche Bay. Axel Island is known to have been the first Russian head-quarters site in Bell Sound, and was probably exchanged for Recherche Bay after this expedition. Nemtinof reached Bell Sound on August 5th, and built five dwelling-houses, each consisting of two rooms, an outer and an inner. He also built bath-houses and store-houses. He sailed away on August 21st, leaving Moisei Ryadin and 16 men behind to winter. Nothing is said about any scientific observations to be made by them, nor is it easy to assign a reason for their having been left, unless it was to make a Government settlement for the purpose of asserting Russian sovereignty over Spitsbergen, or perhaps to examine the suitability of Spitsbergen for Samoyede colonisation.

The main Russian expedition sailed in May, 1765. It consisted of three new ships, specially built at Archangel under the direction of an Englishman. They were two-masted, and adapted to be rowed if necessity arose. They were named Tschitschagof, Panof, and Babojef, after their respective captains. Tschitschagof was in general command. Following the directions of a chart drawn by Nemtinof, they reached Bell Sound on June 16th. Ryadin at once came on board from the settlement with news that all the winterers were well, though some had been sick. After more than a fortnight had been spent at Bell Sound the ships sailed on July 3rd to pursue their mission to the northward. They accomplished nothing of importance. They sailed to and fro amongst drift ice, sometimes in sight of land, sometimes not. This kind of work soon tired them. On the 6th of August they were back again at Archangel.

¹ There is a short, clear account of this expedition in William Coxe's *Russian Discoveries*, 4th edn., London, 1804, 8vo, pp. 398 *et seq.*

Next year, 1766, Tschitschagof was again sent to the arctic regions. He sailed on May 19th and reached Bell Sound on June 21st. Firing a gun to inform the winterers of his arrival he received no answer. Ryadin and his surviving companions were away on a hunting trip to the Dun Islands. Eight graves contained the bodies of the rest. Three days later Ryadin returned. He said that all the company had suffered from scurvy. The lazy men died and the active ones recovered. They had received help from the trappers, whose encampment lay 30 versts (20 miles) away. The trappers were 12 in number and came from Danilowa Pustynja. The officer, Bornewolokof, was sent to visit them on the 26th and came back on the 27th. On the 30th Tschitschagof sailed for the north. He was away a month, during which time he reached only $80^{\circ} 28'$, a few leagues north of Cloven Cliff. He found the ice packed fast against Grey Hook and so returned. If he had waited longer he would have found better conditions; for an English whaling skipper named Robinson took his vessel, the *Reading*, so far to the north of Hakluyt's Headland in open sea, that with a fair wind and sailing due south, it took him 24 hours to reach the headland. By dead reckoning he concluded that he had been in latitude $82^{\circ} 30' N.$ ¹

On July 31st Tschitschagof was in Bell Sound again. He took Ryadin and his companions off, and embarked all the remaining stores that were in good condition. He measured the height of Observatory Hill (1896 ft.). He noticed the frequent calving of the great glacier. On August 7th he sailed for home, leaving three dwelling-huts, one bath-house, and one store-house standing. These huts were probably used by trappers in after-years.

Half a century of hunting in the southern and western parts of Spitsbergen had probably begun to frighten away the beasts, and the necessity of opening new ground was felt. Thus the Russians gradually crept to the north and then eastward along the north coast till the supply of animals was reduced beyond the paying point. In the winter of 1770-71, as already stated, Russian trappers settled for the first time north of the Foreland. They built their head-

¹ Daines Barrington's *North Pole*.

quarters in King's Bay. All members of the expedition died. In the winter of 1772-73 another Russian party wintered somewhere near the Foreland. Phipps' expedition heard that they were 15 in number and that 10 died. The Old Woman and her Sisters were busy in those days.

The record of a great misfortune in 1774 reveals that the hunting of seals was an industry vigorously pursued in the arctic seas at that time. No less than 54 ships were fitted out for it this year alone. Most of them sailed from Hamburg, but several were English. Jan Mayen was about the centre of the best sealing waters then, but the seals were also killed in great numbers near the Spitsbergen coasts. A violent storm overtook the sealing fleet this year at the borders of the ice about 60 miles east of Jan Mayen. Many ships were wrecked and some 400 foreign and 200 British seamen lost their lives¹.

In 1779 the Russian trappers were in occupation of Fairhaven. Next year their head-quarters, opposite Smeerenburg, were visited by Bacstrom, whose description of the building has been quoted above. He was surgeon on board the whaler, *Rising Sun*, which was anchored off Smeerenburg in July. Bacstrom and Captain Souter with a dozen sailors rowed away one fine day to see the Russians, for whom they took a nice lot of presents.

"We landed at the bottom of the harbour to the eastward," he writes, "where we found a large valley, several miles in breadth, surrounded with immense high mountains, mostly covered with snow; but as the sun had melted a part, the brown and black rock appeared, and rivulets of clear water ran down, forming little waterfalls. We crossed a piece of ground where the Dutch had formerly buried their dead; three or four of the coffins were open, with human skeletons lying in them. Some inscriptions on boards, of which above 20 were erected over the graves, had the years 1630, 1640, etc., affixed to them. We also saw the ruins of some brickwork, which had been a furnace." The place where they landed and where these ruins were found was the south-east angle of Mauritius or Dutch Bay. From this point "we had above six miles to walk to the northward, and were very much fatigued on account of the un-

¹ Scoresby, *Arctic Regions*, I. 513.

evenness of the ground and the heat, when we discovered the hut of the Russians at a distance. They perceived our approach, and sent two or three people to meet and welcome us. The common men made a strange appearance; they looked very much like some Jews in Rag-fair or Rosemary Lane. They wore long beards, fur caps on their heads, brown sheep-skin jackets with the wool outside, boots, and long knives at their sides by way of hangers."

They were kindly received by the Russians, to whom they offered presents of gunpowder, cheese, etc., and from whom they received white fox skins, and smoked reindeer tongues and ribs—most excellent eating. They had a feast, drank healths, and enjoyed themselves. The Russian and English surgeons had a race on *ski*. They ran six or seven miles in an hour without fatiguing themselves.

"Before we left our Russian host, he informed us that, a few weeks before, they had, on coming home from a shooting party, found an English captain and nine or ten men overhauling their property in the hut. The captain, finding that his chest had been broken open, and that his roubles were diminished considerably, reproached the English commander with the robbery, and a battle ensued. 'The English fired upon us,' said the surgeon, who acted all along as interpreter, 'and killed one of our men on the spot. We returned the fire and wounded some of his men, and caused them to retreat precipitately. When the English had gone, our captain counted his roubles, and found that there were 600 missing.' He intended to send a statement of the affair to the Russian Government. After having stayed above 12 hours with the Russians, highly entertained, we invited them to come to see us on board, and took our leave, returning the same way by the compass, and arrived safe on board, after having been absent almost 18 hours."

A difficulty arising out of this account is to identify the position of the hut. At first this seems easy. They landed in the S.E. corner of Mauritius Bay at the mouth of a wide valley and then walked N. (*i.e.* along the shore) for over six miles to the hut, which must thus have been situated almost opposite Smeerenburg, as Keilhau also thought and as others record. It must have been on

the mainland, for it is impossible to walk six miles north from any point on the shore of any of the Fairhaven Islands. But as they apparently were anchored near Smeerenburg, why did they row to the bottom of the bay and then walk back six miles N. instead of rowing straight to the hut? They returned by the way they had come. If that was straight along the shore, why did they require to guide themselves by a compass in quite clear weather? They would not need a compass to guide their boat in Mauritius Bay, which is surrounded by land, all points being easy to identify. If it be suggested that the Russian hut was six miles inland the answer is that that is impossible, as all Russian head-quarters had to be close to a good anchorage for a lodja.

During the remainder of the 18th century our information about the Russians is most meagre. A hut at South Cape, seen by Scoresby in 1816, bore the date 1784, which accounts for one wintering. Keilhau and Löwenigh record that in 1795 a small expedition was sent to Spitsbergen by a Hammerfest merchant in partnership with a Russian. They hunted and fished, and apparently wintered. This is the first wintering in which Norwegians are known to have taken part. Russian trappers were seen by Scoresby in King's Bay in 1806. They visited his ship, and Surgeon John Laing records that "during the time they were on board, and particularly while at meat, they behaved with a decorum and gentleness which could hardly be expected from their grotesque appearance."

The record of the trappers is again a blank till 1818, in which year the English ships *Dorothea* and *Trent*, commanded by Buchan and Franklin, when in Magdalena Bay were boarded by Russians from Hamburger Bay. An officer of the *Dorothea* went back with them to see their establishment. "They had here a comfortable wooden hut, well lined with moss, divided into three compartments; in one of which there were three carcasses of fine venison and many wild ducks... This is one of the few remaining establishments at Spitsbergen still upheld by the merchants of Archangel; who, during the last century, and under the auspices of the Russian Government, formed a settlement in Bell Sound upon this coast, and who still send annually a small vessel

to bring home the peltry and sea-horse teeth that have been collected by their servants during the year¹."

In this same year 1818, or in 1819, a party of Russians, who intended to winter at Ice Sound or Bell Sound, were prevented by ice from arriving at those stations. They settled at South Cape instead and made the great slaughter of walrus already recorded above. The Russians were as yet far from thinking of abandoning Spitsbergen. Indeed a Russian naval officer in this very year 1819 reported that seal and bear hunting at Spitsbergen had of late paid better than at Novaja Zemlja, owing to the ice conditions that had prevailed².

An Englishman, named Crowe, who was British Vice-consul at Hammerfest, had a mercantile establishment there, and traded in arctic produce. Crowe was the real founder of the Norwegian hunting industry in Spitsbergen, which is still maintained, though with steadily decreasing profit. In 1819 Crowe sent a sloop with eleven men to make trial of the hunting at Bear Island and Spitsbergen. They visited the south bays of the west coast and brought back a good account of the walrus and reindeer hunting and of the eider-down that might be collected. The expedition was repeated in 1820, under the leadership of a tailor named Fallengrün, who seems to have been a well-known character at Hammerfest³. It was this expedition, I believe, that revealed a tragedy which happened to a party of Russian trappers, who had passed the previous winter in Horn Sound. The Norwegians found a stranded lodje on the beach near the huts, but no men about. On landing they were horrified to discover ten corpses lying in a big box in which they had been buried. "The bears had dug them out again.

¹ Beechey, p. 59. See also Coxe's *Russian Discoveries*.

² See Malte-Brun.

³ Sir A. de C. Brooke, who spent part of the winter of 1820-21 at Hammerfest, describes Crowe as a young English merchant living at Fugleness, opposite Hammerfest, where he had recently settled to trade. He had established a settlement at Bear Island on the plan of the Hudson's Bay Company. Encouraged by that he had since despatched 30 persons and a leader to three different parts of Spitsbergen, where houses had been previously erected—Horn Sound, Ice Sound, and Smeerenburg Bay. In the autumn of 1820 Mr Colquhoun had recently returned from an expedition to the Spitsbergen coasts to try the power of the Congreve rocket against finner whales (*A Winter in Lapland and Sweden*, London, 1827, 4to, pp. 130 *et seq.* See also Keilhau, pp. 233 *et seq.*, and Löwenigh).

Two more bodies were covered by a mat. Of them little was left. In the hut lay a corpse half devoured by foxes. Scattered bones were all about. Some circumstances seemed to indicate that that unlucky expedition had been ready to go home when it was fallen upon and plundered by freebooters¹. Such was the story as told to Keilhau in 1827. In 1861 the Swedish expedition saw the remains of the hut well-preserved. The expedition of 1864 found nine skulls lying about. By that time the legend had grown and it was asserted that the freebooters were an English crew which had never been brought to justice².

In 1896 a Hammerfest ice-master told me what was probably a yet further development of the same tale. I wrote it down from his lips. "The story," he said, "is written down and printed. It is well known in Hammerfest and Tromsø. I once read it and have often heard it told, but I do not now remember all the details. It was, at all events, to this effect. There was at Hammerfest a skipper named Andersen, by birth a Dane, but regularly settled in Hammerfest. This year—it may have been fifty years ago, or more—he sailed with his sloop in the spring, and came in June to the Dun Islands. Now the Russians had been very successful in their winter trappings and they had a great quantity of skins, which Andersen saw and coveted. He thought it would be cheaper to take them than to buy them, so he just killed the Russians, who were weak, and took their stuff away. He killed them with a harpoon on which was his name, and, when he went off, he forgot the harpoon and left it behind. Shortly afterwards the skipper Stuer of Tromsø came that way with his sloop, and he too landed on the Dun Islands and found the bodies of the murdered Russians, and in one of them Andersen's harpoon sticking, so he knew what had happened. He sailed away and met Andersen's sloop, and went on board and talked with Andersen, who suspected that Stuer had found him out, though nothing was said. At all events, Andersen was afraid, and considered how he might be rid of Stuer.

"They sailed on, hunting along the edge of the ice-pack, and one day, when they were very far from land and Stuer

¹ Keilhau, p. 237.

² Passarge, pp. 356, 448.

was away from his sloop in his walrus-boat, Andersen went on to Stuer's sloop and managed to do it some harm, so that presently it seemed to be sinking. Then he went again to the sloop and rescued Stuer's wife and the people on board and sailed away with them to Hammerfest; for, what with the things he had taken from the Dun Islands, and the catch he had made, he had already a full cargo. At Hammerfest he landed the people and his cargo and told how Stuer's sloop had gone down, and how Stuer himself must be lost, for he was away in his open walrus-boat, and could not be found. Then he sailed away again from Hammerfest to the ice.

"Meanwhile Stuer had returned to his sloop and found her in a bad way, but he succeeded in patching her up and brought her back to Tromsö, where he met his wife. He soon saw what Andersen must have done, so he related all that he knew about the Russians. But vengeance was already on Andersen's track. He took his sloop far up into the ice, which came packing all around him so that he could find no way out. Leaving the ship, he got on to a high iceberg and climbed to the very topmost peak of it, for it was tall and sharp. As he stood on the top looking all round for a way to come out of the ice, the great iceberg trembled and then turned right over. It flung the murderer into the sea and sucked him under, so that he was never seen again, and went straight to hell."

In the summer of 1821 another Norwegian hunting expedition was sent out from Hammerfest by Crowe. It went for part of the season to Edge Island where three men and a boy went off in a boat and were not seen again¹. In the summer of 1822 Fallengrün died in Spitsbergen. In 1822-23 the first independent Norwegian wintering took place. A crew of 16 men were sent up to Cross Road by Bremen and Norwegian employers. They built two wooden huts near the site which the Russians had so often visited. The plan was that the settlement should be maintained for three years, the men being changed yearly. Arrived at Cross Road, 10 men built the huts while six went to Ice Sound to kill reindeer. In the first month they collected a little eider-down. The walruses came in in

¹ R. P. Gillies' *Tales*, first series, Vol. II. p. 137.

August, and were hunted successfully, but the net brought up for white whales was not used. The men kept their health through the winter, but two lazy ones went down with scurvy in March. They were presently cured. In June two of Crowe's hunting sloops came in, and their own relief sloop arrived a few days later, bringing a new crew. The winterers presently sailed home. The new crew were less fortunate. They considered Cross Road an unfavourable position, so they migrated to Green Harbour and settled in the old Russian hut, which, however, afforded them such bad quarters that three men died. The third wintering was accordingly abandoned by the Bremen and Norwegian partnership. Now, however, Crowe took up the enterprise and sent 22 men to build a hut at Green Harbour and winter there in 1823-24. A Russian party simultaneously wintered at Mauritius Bay and another Russian party at Bell Sound. There were also Norwegian winterings at Bear Island about this time.

It was, however, the Norwegian summer hunting expeditions that were now developing. Five sloops went to Spitsbergen for the season of 1824. In 1825 a forty-ton cutter belonging to Crowe sailed as far north as Walden Island. In the following winter 22 more Norwegians stayed at Green Harbour. They occupied both the Norwegian and the Russian huts, and they established an out-station in an old Russian hut. The five men who occupied this out-station remained inactive through fear of bears and so took scurvy and died¹.

In the summer of 1826 the number of Hammerfest sloops that hunted round Spitsbergen increased to seven. All this time the Russians continued to frequent the country though I can find no records of their doings. They apparently wintered often in the Russian valley near Green Harbour. There in 1826 died the old Russian foreman Starashchin, from whom Cape Starashchin at the mouth of Ice Sound is named. Crowe, who knew him well, stated that he had spent 39² winters in Spitsbergen and 15 consecutive years without once leaving the island.

¹ Keilhau is the authority for all these events.

² Keilhau says 32, and so says Löwenigh. See *R. G. S. Proceed.* XXIII. p. 132.

Norwegians told Sven Lovén that he was a lively, ruddy little man with white hair and of patriarchal appearance. He was sent by the monks of Solovetskoï, who looked after him like a father. He died of old age and was buried at Green Harbour. The ruins of his hut were still pointed out in 1868.

When Everest visited Hammerfest in 1827 he found that the Spitsbergen trade was the main support of the place. Keilhau's visit to the island in that year, and his published account of its resources, called attention to the Norwegian hunting industry. He records that sloops were then fitted out from Vardö, Hammerfest, Trondhjem, Bergen, Copenhagen, and Flensburg, but states that their number was already beginning to decrease. Keilhau's report stimulated the Norwegians to compete with the Russian trappers. This competition appears to have ultimately destroyed the Russian trade. I have heard of a Norwegian wintering in 1833, of which an account by Lieut. Hetting is stated to have been published. One man was killed by falling down a mountain, but the rest came safely through. Winterers at Bear Island in 1834 all died.

The experiences of the four Russian sailors of 1743 were almost exactly repeated in the winter of 1835-36 by four Norwegian sailors¹. Their ship was near the Thousand Islands, in the month of September, and they were sent off in a boat to explore a harbour. They had only gone a mile or two when fog enveloped them and prevented them from finding either the bay or the ship. Hearing waves break on rocks they rowed in that direction and landed on a small island. The fog did not lift for more than two days. In the endeavour to find their ship they landed on another island. At last they sighted the vessel and were rowing towards her, when the wind sprang up and carried her away. Afterwards they saw her once more, but could not come up with her and were abandoned. Finding three huts at some point on the coast, apparently of Edge Island, but not exactly identifiable, they decided to winter there. They were greatly straitened for food till they succeeded in killing some walruses. One day

¹ See *La Recherche*, Narrative, Vol. I. p. 264; and X. Marmier, *Lettres*, p. 471.

when out walrus-hunting the ice packed about them. They hauled their boat and slain walruses on to it and drifted about for two days. They became utterly faint from cold and exposure, and thought they would soon die, but the ice broke up suddenly and they were able to launch their boats and regain the huts. They made a lamp of the bottom of a bottle, used walrus blubber for oil (like Nansen), and cord for a wick. With nails for needles and unravelled rope for thread they made for themselves clothes of skins. They fashioned playing-cards out of slips of wood and grew so excited over their games that they sometimes came to blows.

In December the laziest of them died of scurvy. Bears often visited their cabin. They killed several with lances. Once they ate the liver and were all made ill by it. Violent headaches were followed by lassitude. Finally their skins peeled off and they recovered. In April they killed their last bear and had thenceforward to feed on walrus. On June 20th they saw a vessel coming their way. It was within six miles of them on the 22nd, and their excitement was great. They rowed off to it. It was a ship from Altona. A few days later they were transferred to a Vardö boat, which took them home. They carried their wooden cards home with them, and told their story to Pastor Aall of Hammerfest, who related it to Xavier Marmier.

I find a bare statement that in 1837 eighteen Russians wintered at the South Cape and all died. Xavier Marmier records that an equal number of Russians wintered and died at the Thousand Islands. Possibly both accounts refer to a single tragedy. In 1839 we know that there was a Russian wintering at Wijde Bay, where the Swedes found the hut in 1861¹. Ten sloops went to the hunting in the following summer—four from Hammerfest, two from Bornholm, four from Copenhagen. This was considered to show a great falling off in the summer hunting industry. No sloops are mentioned as coming from Russia, but it must not be assumed that none came.

About 1843 Charitonow states that the "men of the old faith" sent up a lodja from the Danilowa Pustynja, in the district of Kem, and "hired hunters to go to Spitsbergen

¹ Passarge, p. 247.

for trapping. Two or three hundred versts from the Islands the vessel became enclosed in the ice. The crew abandoned all hope of being saved, when, to their joy, the huge ice-floe split apart, with a report like thunder, in front of the ship, and a passage opened up, broad enough for the lodja to pass down. The hunters took fresh courage. A gentle wind from the south arose, and the lodja glided along with swelling sails, grazing from time to time the walls of ice which bordered the passage. Suddenly the ice began to close again, coming nearer and nearer together, until the passage was quite blocked. All at once the ribs of the vessel cracked. The crew rushed forward, some to drag away a keg of powder, others a sack of ship's biscuits. But all had not time to save themselves. In a moment, the great, strong lodja was crushed flat like a cardboard box, together with the four sailors left on board. The others were carried along on the ice-floe to the rocky cliffs of Spitsbergen, and what is remarkable is, that they went thence to the North Cape in nine days, in a shallop of middling size, with one sail only."

We read of another Russian lodja a few years later, which returned from Spitsbergen, short of her captain and two sailors¹. They said that they had had the misfortune to lose them and no one thought more of so ordinary an occurrence. But some years afterwards, in 1853, a Norwegian hunter found the skeleton of a man lying on the shore at Spitsbergen, and by his side a metal flint and tinder box. He noticed that some writing was scratched on the lid of the box, so he carried it off with him. The writing stated that the owner, with two or three men of his crew, had been marooned, and that his companions were already dead of hunger. He obviously shared the same fate. The strange diary ended with March 3. The Norwegian sent the box to Archangel. Investigations followed. The criminals were discovered and punished with exile to Siberia.

The last mention of Russian trappers wintering in Spitsbergen is in the season of 1851-52². In June, 1851, the merchant Kusnezow laded a lodja with two years' pro-

¹ Passarge, p. 448.

² Two accounts have been published. Erman's *Archiv* (reprinting from the *St Petersburg Journal*), Vol. 13 (1854), pp. 260-265; Passarge, p. 452.

visions, and timber for a head-quarters establishment, and sent her forth with a crew of 18 men. It was their intention to land in the south of Spitsbergen, on the so-called Rimbow Point, which, I suppose to have been South Cape. Their ignorant captain missed his way and ultimately landed them at Red Bay, near the north-west corner of the island, on July 19. They drew their lodja up on shore and set up their barrack. The captain and three men settled in this hut, whilst the other ten went away in boats looking for old huts to use as outposts. They found five. One was 80 years old. These five huts were spread over a distance of 100 versts. The furthest may therefore have been one of the huts whose ruins may still be seen on the Ryss Islands. They stayed in the outposts for 17 weeks, hunting with much success. On December 5th all were back at Red Bay for the long night. With idleness, scurvy set in. Only six men remained healthy on Dec. 20th. The necessity of obtaining a supply of fresh meat compelled three of these six to go and hunt. On their return only one remained able to get about. "The groans of men in agony filled the hut." One man died in January, three in February, five in March, one in April, and one in May. On July 3rd they were visited by some of the crews of two Norwegian hunting sloops, "accustomed to go up yearly after walrus." These men helped the six survivors to launch their lodja and cut a canal for it through the land-ice to the open sea. They thus returned home, but had to abandon most of their furs in the various outpost huts. The six men who arrived home stated that they were ready to go and winter in Spitsbergen again whenever anyone wanted to send them. It appears however that no Archangel merchant cared to adventure again in what had doubtless for some time been a losing trade. Probably this unfortunate voyage terminated the industry. A few years later Lamont¹ saw the ruins of their hut on Biscayers Hook with the usual Russian crosses standing by it. The hut was still discoverable as late as 1896, when I was up there, but the tragedy connected with it was already forgotten by the Norwegian sailors who accompanied me. They told a somewhat similar tale, but associated it not with Biscayers Hook but with Keilhau Bay in Edge Island.

¹ *Arctic Seas*, p. 244.

CHAPTER XXI.

NATIONAL EXPEDITIONS TO SPITSBERGEN.

AFTER the middle of the 18th century the age of science was at hand. The horizon of the interests of intelligent men widened. Nature in all her aspects found an increasing number of faithful students. The attention even of Governments was turned to, and national funds began to be employed for, what may be called broadly, scientific purposes. A century before, as we have seen, the Royal Society of London had directed attention to the lack of exact information as to the regions of the North, and Martens in consequence published the results of his voyage. This, however, was a premature movement. It was not till after the middle of the 18th century that the foundations were laid for a really scientific study of Arctic problems.

The moving spirit in England was the Hon. Daines Barrington. He was fascinated by the idea of the North. While other men were interested in promoting the exploration of the habitable parts of the world, he fixed his attention on the North Pole. Not that he wished to sail there himself. The amateur explorer had not yet arisen. He wanted to have an expedition sent there, and an expedition in those days meant a naval expedition. Accordingly he set himself at work to arouse interest in polar research. He read all old literature of Arctic voyages that he could find, especially with reference to the attainment of high latitudes. Whaling skippers were not very accurate talkers, and many of them had boasted, at one time or another, of having reached impossible latitudes. In the foregoing chapters we have shown the inaccuracy of some of these skippers' tales. Barrington had no such means as we possess for correcting what he heard and read. He wrote down a list of high

latitudes claimed to have been attained at different dates, and he argued that the Pole itself could be reached by a sailing vessel in a favourable year.

In 1775 Barrington published a memoir entitled *The Possibility of approaching the North Pole*, but most of the materials contained in it had been utilized by him in previous years in his efforts to raise interest in the question. The Royal Society was the body by means of which he operated. He read several Arctic papers at its meetings. He was finally successful in moving the Society, in the early part of 1773, to present a memorial to the King, urging the desirability of sending an expedition to try how far navigation was possible in the direction of the North Pole. The proposal met with royal approbation, and two bomb-vessels, the *Racehorse* and the *Carcass*, were selected for the cruise. The Hon. Constantine John Phipps, afterwards Lord Mulgrave, Captain of the *Racehorse*, was given the general command. The *Carcass* was in the hands of Commander Lutwidge, and Horatio Nelson, aged 14, was a midshipman on board of her.

At a later period of his life Nelson related how, when the expedition towards the North Pole was fitted out, "although no boys were allowed to go in the ships (as of no use), yet nothing could prevent my using every interest to go with Captain Lutwidge in the *Carcass*; and as I fancied I was to fill a man's place, I begged I might be his cockswain; which, finding my ardent desire for going with him, Captain Lutwidge complied with, and has continued the strictest friendship to this moment. Lord Mulgrave, whom I then first knew, maintained his kindest friendship and regard to the last moment of his life¹."

The *Racehorse* and the *Carcass*, having been duly fitted, sailed from the Thames on June 2nd, the object of the expedition being, as stated by Phipps himself, "to ascertain a very interesting point in geography." No Arctic expedition of earlier date could have been so described. Spitsbergen was sighted on the 28th. They were off the Foreland on July 2, and they measured the height of a peak on it and found it to be 4509 feet. On July 4th they passed the entrance of Magdalena Bay and had 15 sail of whalers in

¹ Captain A. T. Mahan's *Life of Nelson*, London, 1897, Vol. I. p. 12.

sight at once. Altogether they met a great many whalers, both English and Dutch. Next day they encountered the ice-pack near Hakluyt Headland and nearly ran into it in the fog. The conditions of the ice unfortunately proved very bad during the whole summer, and from this time onward they were floundering about in it. Their object was to press ever northward. It was not Spitsbergen they were seeking, but the North Pole. The ice, however, opposed their progress, and the highest point they were then able to reach was $80^{\circ} 36'$ on July 9th. Further advance being impossible, they ran into Fairhaven¹ on the 13th, and cast anchor behind Vogelsang. Four English and two Dutch whalers were in the haven. The fishery was still a very good business at the edge of and just within the pack, July and the first ten days of August being the best time. Floyd describes how they landed on the different islands and climbed the hills. Dr Irvine carried a barometer to the top of the highest hill in the neighbourhood and found it to measure 1250 feet. Other instruments were set up on Deadman's Island and various observations made. There was some surveying attempted and a wonderful chart was produced, which is still the marvel of those who take interest in Spitsbergen surveying, for its extraordinary badness. Natural history collections were also made. Phipps himself climbed a hill at Fairhaven to inspect the ice-pack. It was doubtless the Outer Norway, so often climbed by ice-bound navigators before and since². Lamont describes a characteristic view of the pack seen from thence. "Stretching from Welcome Point³ and enveloping Moffen Island, the ice appeared to be in one dense, unbroken sheet. Streams of ice were carried hither and thither by varying currents which prevail here. But the main pack seemed absolutely impenetrable." The same graphic writer visited it again on a glorious day. "The heat was overwhelming. Not a breath of air. The un-

¹ Here and afterwards the name Fairhaven was wrongly applied to the anchorages about the Norways and Vogelsang, being no part of the original Fairhaven of the early English whalers.

² See a good illustration, "The Look-out from the Norways," in Lamont's *Arctic Seas*, p. 266. It is reproduced in the present volume.

³ By Welcome Point Lamont means the point at the E. end of Red Beach. Redbeach Point is its proper name.

clouded sun, blazing down, was reflected from the dazzling snow or radiated from the rocks, and made one almost forget latitude till the eye again rested on the great icy expanse to the north. Intense quiet prevailed everywhere; the wailing cries of a couple of burgomasters, and the shrill chattering of some rotges in the cliff below, alone broke the stillness....I left the summit with a very definite picture of the ice engraved indelibly on my brain—a picture which is called up readily in all its clearness whenever I hear wild talking or read vague theories on the subject of traversing the pack to the North Pole!" That was just what Phipps had to try to do.

After spending five days in Fairhaven he again tried to get north, but on July 25th was no further advanced than two miles off Moffen Island. Lutwidge sent a party to land on it, "who found the island to be nearly of a round form, about two miles in diameter, with a lake or large pond of water in the middle....The ground between the sea and the pond is from half a cable's length to a quarter of a mile broad, and the whole island covered with gravel and small stones, without the least verdure or vegetation of any kind. They saw only one piece of drift wood... which had been thrown up over the high part of the land, and lay upon the declivity towards the pond. They saw three bears, and a number of wild ducks, geese, and other sea-fowls, with birds' nests all over the island. There was an inscription over the grave of a Dutchman, who was buried there in July, 1771." (Phipps, p. 53.)

On the 26th they were for a while in open water, and at midnight between July 27th and 28th they attained their highest northing, Lat. $80^{\circ} 37'$ N. Next day they were near Low Island, and a party landed and found the beach formed "of old timber, sand, and whale-bones"; the drift wood was great trees torn up by the roots, others cut down, and there was wood fashioned for use. "The island is about seven miles long, flat, and formed chiefly of stones from 18 to 30 inches over, many of them hexagons, and commodiously placed for walking on; the middle of the island is covered with moss, scurvy-grass, sorrel, and a few ranunculuses then in flower. Two reindeer were feeding on the moss; one we killed, and found it fat and of high flavour.

We saw a light grey-coloured fox; and a creature somewhat larger than a weasel, with short ears, long tail, and skin spotted white and black. The island abounds with small snipes, similar to the jack-snipe in England. The ducks were now hatching their eggs, and many wild geese feeding by the water-side." On their way back to the ship they fired at and wounded a walrus, "which dived immediately, and brought up with it a number of others. They all joined in an attack upon the boat, wrested an oar from one of the men, and were with difficulty prevented from staving or oversetting her; but a boat from the *Carcass* joining ours they dispersed." The middy in command of this boat was Nelson.

On July 30th they were among the Seven Islands in the ice. Lutwidge landed on Phipps Island and climbed to the top, "whence they commanded a prospect extending to the east and north-east, 10 or 12 leagues, over one continued plain of smooth unbroken ice, bounded only by the horizon: they also saw land stretching to the S.E. (North-east Land), laid down in the Dutch charts as islands. The ships now remained beset for several days, and it was during this time that young Nelson had his famous adventure with the polar bear. I copy the following account from Captain Mahan's *Nelson*; it is quoted by him from Nelson's "first biographers."

"There is also an anecdote recollected by Admiral Lutwidge, which marked the filial attention of his gallant cockswain. Among the gentlemen on the quarter-deck of the *Carcass*, who were not rated midshipmen¹, there was, besides young Nelson, a daring shipmate of his, to whom he had become attached. One night, during the mid-watch, it was concerted between them that they should steal together from the ship, and endeavour to obtain a bear's skin. The clearness of the nights² in those high latitudes rendered the accomplishment of this object extremely difficult: they, however, seem to have taken advantage of the haze of an approaching fog, and thus to have escaped unnoticed.

¹ As a matter of fact they were so rated. See list of officers published by Admiral Markham in *Northward Ho*.

² There were no nights at all at that time of year, but broad daylight all the 24 hours.

Nelson in high spirits led the way over the frightful chasms in the ice, armed with a rusty musket. It was not, however, long before the adventurers were missed by those on board; and, as the fog had come on very thick, the anxiety of Captain Lutwidge and his officers was very great. Between three and four in the morning the mist somewhat dispersed, and the hunters were discovered at a considerable distance, attacking a large bear. The signal was instantly made for their return; but it was in vain that Nelson's companion urged him to obey it. He was at this time divided by a chasm in the ice from his shaggy antagonist, which probably saved his life; for his musket had flashed in the pan, and their ammunition was expended. 'Never mind,' exclaimed Horatio, 'do but let me get a blow at this devil with the butt-end of my musket, and we shall have him.' His companion, finding that entreaty was in vain, regained the ship. The captain, seeing the young man's danger, ordered a gun to be fired to terrify the enraged animal. This had the desired effect; but Nelson was obliged to return without his bear, somewhat agitated with the apprehension of the consequence of this adventure. Captain Lutwidge, though he could not but admire so daring a disposition, reprimanded him rather sternly for such rashness, and for conduct so unworthy of the situation he occupied; and desired to know what motive he could have for hunting a bear? Being thought by his captain to have acted in a manner unworthy of his situation made a deep impression on the high-minded cockswain; who, pouting his lip, as he was wont to do when agitated, replied, 'Sir, I wished to kill the bear, that I might carry its skin to my father.'

On the 5th of August the condition of affairs seemed so serious that Phipps began preparations for abandoning the ships. He sent Walden, a midshipman, with two pilots to walk 12 miles over the ice to a rocky island, named Walden Island after him. They climbed to the top of it and examined the pack, discovering open water to the westward, but no good prospect. The ice conditions growing worse and the ships driving fast towards shoal ground and rocks, preparations were made to abandon the vessels and betake themselves to the boats. Nelson related

that, "When the boats were fitting out to quit the two ships blocked up in the ice, I exerted myself to have the command of a four-oared cutter raised upon, which was given me, with twelve men; and I prided myself in fancying I could navigate her better than any other boat in the ship¹." After several days of suspense, however, and much hard work they got out of the ice in safety on the 10th, and next day came to an anchor in the harbour of Smeerenburg. They found four Dutch ships there, for "the Dutch ships still resort to this place for the latter season of the whale fishery." A week later another attempt was made to penetrate the pack north-westwards, but with no result, so on August 22nd they sailed for home.

The expedition is not generally regarded as having been a success, yet, except for the badness of the chart of Fairhaven, it really accomplished good work. It discovered the beautiful ivory gull, the fairest bird of the Arctic regions. It made numerous observations that were very valuable in their day. It did not penetrate to a notably high latitude, but it went as far north as a sailing ship can expect to go in this longitude in an ordinary year. Of course it wasted much time at sea that might have been far more profitably employed on the nearest land, but it was fulfilling instructions in so doing. The notable point is that this was the first purely geographical Arctic expedition. The Russian expedition under Tschitschagof was part of a colonizing experiment, and was only geographical in a secondary degree. It is clear that its commander considered his northern explorations as of minor importance, and easily desisted from them in face of difficulties—an accusation that cannot be brought against Phipps. The real business of the Russians was to establish and supply the settlement in Bell Sound. Phipps had nothing else to do but to explore. That is the fact to which the English expedition of 1773 owes its importance in Arctic history. It was, in intention, a purely scientific mission, though only one or two professional scientific men were on board.

The next Arctic explorer who calls for special attention in connexion with Spitsbergen is W. Scoresby. He has been well called "the De Saussure of the Arctic regions."

¹ Mahan's *Nelson*, Vol. I. p. 12.

He was a whaler of Whitby and the son of a whaler; he was also a man endowed with unusual powers of observation, who loved his work and did it ably, and who loved the Arctic regions and took keen interest in the scientific problems they offered for solution. Year after year for more than a quarter of a century he pursued his adventurous career in the northern seas, never neglecting business in the cause of science, but always mindful of science when business permitted. John Laing, the surgeon of his ship, published a much-read account of Scoresby's voyage in 1806, the year in which he sailed on May 28th to $81^{\circ} 30' N.$ in $19^{\circ} E.$ longitude, and visited a great part of the Spitsbergen coast. It is recorded that in this same year two French frigates cruised about in the whale-fishing region during the latter part of the season and destroyed several whalers, but they missed Scoresby's *Resolution*. If attacked, she might have given a good account of herself, for she was fitted out as a letter of marque, armed with twelve 6-pounders, besides stern-chasers and small arms. She had a crew of between 60 and 70 men. A good many years before, Whitby used to send 20 vessels to the whale-fishery, but the trade fell off till Scoresby revived it. He does not seem to have landed very often on Spitsbergen, but he did so in the year 1818, when he climbed the hill on Collins Cape (whose name had been long forgotten), which he called Mitre Cape, or Mitra Hook. His account of this expedition is worth quotation¹:

In the summer of 1818 I was several times on shore on the main near *Mitre Cape*, and landed once, in the same season, on the north side of King's Bay. Being near the land on the evening of July 23, the weather beautifully clear, and all our sails becalmed by the hills, excepting the topgallant sails, in which we had constantly a gentle breeze, I left the ship in charge of a principal officer, with orders to stand no nearer than into thirty fathoms water, and with two boats and fourteen men rowed to the shore. We arrived at the beach about $7\frac{1}{2}$ P.M., and landed on a tract of low flat ground, extending about six miles north and south, and two or three east and west, from the east side of which a mountain-arm takes its rise, terminating on the south with the remarkable insulated cliff constituting Mitre Cape. This table land lies so low that it would be overflowed by the sea, were it not for a natural embankment of shingle thrown up by the sea; indeed, from the seaweed and driftwood found upon it, it seems at no very remote period to have been covered by the tide. The shingle forming the sea-bank consists, in general, of remarkably round pebbles; many of them being calcareous, are prettily veined.

After advancing about half a furlong from the sea, we met with mica-slate

¹ Scoresby's *Arctic Regions*, I. 118-123, 126-138.

in nearly perpendicular strata; and, a little farther on, with an extensive bed of limestone in small angular fragments. Here and there we saw large ponds of fresh water, derived from melted ice and snow; in some places small remains of snow; and, lastly, near the base of the mountains, a considerable morass, into which we sunk nearly to the knees. Some unhealthy looking mosses appeared on this swamp; but the softest part, as well as most of the ground we had hitherto traversed, was entirely void of vegetation. This swamp had a moorish look, and consisted apparently of black alluvial soil, mixed with some vegetable remains, and was curiously marked on the surface with small polygonal ridges, from one to three yards in diameter, so combined as to give the ground an appearance similar to that exhibited by a section of honey-comb. An ascent of a few yards from the morass, on somewhat firmer ground, brought us to the foot of the first mountain to the northward of the Mitre. Here some pretty specimens of *Saxifraga oppositifolia* and *Groenlandica*, *Salix herbacea*, *Draba alpina*, *Papaver alpina* (of Mr Don), &c., and some other plants in full flower were found on little tufts of soil and scattered about on the ascent. The first hill rose at an inclination of 45° to the height of about 1,500 ft., and was joined on the north side to another of about twice the elevation. We began to climb the acclivity on the most accessible side at about 10 P.M., but from the looseness of the stones and the steepness of the ascent we found it a most difficult undertaking. There was scarcely a possibility of advancing by the common method of walking, for in this attempt the ground gave way at every step, and no progress was made; hence the only method of succeeding was by the effort of leaping or running, which, under the peculiar circumstances, could not be accomplished without excessive fatigue. In the direction we travelled we met with angular fragments of limestone and quartz, chiefly of one or two pounds weight, and a few naked rocks protruding through the loose materials of which the side of the mountain, to the extent it was visible, was principally composed. These rocks appeared solid at a little distance, but on examination were found to be full of fractures in every direction, so that it was with difficulty that a specimen of five or six pounds weight, in a solid mass, could be obtained. Along the side of the first range of hills near the summit was extended a band of ice and snow, which, in the direct ascent, we tried in vain to surmount. By great exertion, however, in tracing the side of the hill for about 200 yards, where it was so uncommonly steep that at every step showers of stones were precipitated to the bottom, we found a sort of angle of the hill free from ice by which the summit was scaled.

Here we rested until I took a few angles and bearings of the most prominent parts of the coast, when, having collected specimens of the minerals and such few plants as the barren ridge afforded, we proceeded on our excursion. In our way to the principal mountain near us, we passed along a ridge of the secondary mountains, which was so acute that I sat across it with a leg on each side, as on horseback. One side of it made an angle with the horizon of 50° , and the other of 40° . To the very top it consisted of loose sharp limestones, of a yellowish or reddish colour, smaller in size than the stones generally used for repairing high roads, few pieces being above a pound in weight. The fracture appeared rather fresh. After passing along this ridge about three or four furlongs, and crossing a lodgment of ice and snow, we descended by a sort of ravine to the side of the principal mountain, which arose with a uniformly steep ascent, similar to that we had already surmounted, to the very summit. The ascent was now even more difficult than before: we could make no considerable progress but by the exertion of leaping and running, so that we were obliged to rest after every fifty or sixty paces. No solid rock was met with, and no earth or soil. The stones, however, were larger, appeared more decayed, and were more uniformly covered with black lichens; but several plants of the *saxifraga*, *salix*, *draba*, *cochlearia*, and *juncus* genera, which had been met with here and there for the first 2,000 ft. of elevation, began to disappear as we approached the summit. The invariably broken state of the rocks appeared

to have been the effect of frost. On calcareous rocks, some of which are not impervious to moisture, the effect is such as might be expected; but how frost can operate in this way on quartz is not so easily understood.

As we completed the arduous ascent, the sun had just reached the meridian below the Pole, and still shed his reviving rays of unimpaired brilliancy on a small surface of snow which capped the mountain's summit. A thermometer placed among stones in the shade of the brow of the hill indicated a temperature as high as 37° . At the top of the first hill the temperature was 42° , and at the foot, on the plain, 44° to 46° , so that, at the very peak of the mountain, estimated at 3,000 ft. elevation, the power of the sun at midnight produced a temperature several degrees above the freezing point, and occasioned the discharge of streams of water from the snow-capped summit.

The form of the mountain summit which I visited is round backed, the area of the part approaching the horizontal position not being above a quarter of an acre. The south side, where we ascended, and the south-east are the only accessible parts, the east, north, and west aspects being precipitous nearly from top to bottom. What snow still remained on the summit was but a few inches deep, and appeared to be in a state of rapid dissolution; the sides of the hill were almost entirely free from snow. The masses of stone on the brow of the mountain were larger than any we had yet met with, the fracture was less fresh, and they were more generally covered with lichens.

From the brow of the mountain, on the side by which we ascended, many masses of stone were dislodged by design or accident, which, whatever might be their size, shape, or weight, generally made their way with accelerated velocity to the bottom. As they bounded from rock to rock they produced considerable smoke at each concussion, and, setting in motion numerous fragments in their course, they were usually accompanied by showers of stones, all of which were lodged in a bed of snow lying 2,000 ft. below the place where the first were disengaged. This may afford some idea of the nature of the inclination. Most of the larger stones which were set off broke into numbers of pieces, but some considerable masses of a tabular form wheeled down upon their edges, and though they made bounds of several hundred feet at a time, and acquired a most astonishing velocity, they sometimes got to the bottom without breaking.

The prospect was most extensive and grand. A fine sheltered bay was seen on the east of us, an arm of the same on the north-east, and the sea, whose glassy surface was unruffled by a breeze, formed an immense expanse on the west; the icebergs¹, rearing their proud crests almost to the tops of the mountains between which they were lodged, and defying the power of the solar beams, were scattered in various directions about the sea coast and in the adjoining bays. Beds of snow and ice filling extensive hollows, and giving an enamelled coat to adjoining valleys, one of which commencing at the foot of the mountain where we stood, extended in a continued line towards the north, as far as the eye could reach; mountain rising above mountain, until by distance they dwindled into insignificance; the whole contrasted by a cloudless canopy of deepest azure, and enlightened by the rays of a blazing sun, and the effect aided by a feeling of danger, seated as we were on the pinnacle of a rock, almost surrounded by tremendous precipices—all united to constitute a picture singularly sublime. Here we seemed elevated into the very heavens, and, though in a hazardous situation, I was sensible only of pleasing emotions, heightened by the persuasion that, from experience in these kind of adventures, I was superior to the dangers with which I was surrounded. The effect of the elevation and the brightness of the picture were such that the sea, which was at least a league from us, appeared within reach of a musket-shot; mountains a dozen miles off seemed scarcely a league from us; and our vessel, which we

¹ By 'icebergs' Scoresby means glaciers.

knew was at the distance of a league from the shore, appeared in danger of the rocks.

After a short rest, in which we were much refreshed with a gentle breeze of wind that here prevailed, and after we had surveyed the surrounding scenery as long as it afforded anything striking, we commenced the descent. This task, however, which before the attempt we had viewed with indifference, we found really a very hazardous, and in some instances a painful undertaking. The way now seemed precipitous. Every movement was a work of deliberation. The stones were so sharp that they cut our boots and pained our feet, and so loose that they gave way almost at every step, and frequently threw us backward with force against the hill. We were careful to advance abreast of each other, for any individual being below us would have been in danger of being overwhelmed with the stones which we unintentionally dislodged in showers. Having, by much care, and with some anxiety, made good our descent to the top of the secondary hills, to save the fatigue of crawling along the sharp ridge that we had before traversed we took down one of the steepest banks, the inclination of which was little less than 50° . The stones here being very small and loose, we sat down on the side of the hill, and slid forward with great facility in a sitting posture. Towards the foot of the hill an expanse of snow stretched across the line of descent. This being loose and soft, we entered upon it without fear, and our progress at first was by no means rapid; but, on reaching the middle of it, we came to a surface of solid ice, perhaps a hundred yards across, over which we launched with astonishing velocity, but happily escaped without injury. The men whom we left below viewed this latter movement with astonishment and fear.

In 1820 Scoresby published, at Edinburgh, the result of his life's observations in two volumes, entitled *An Account of the Arctic Regions*—a classical work which is still well worth reading, and might be republished with success nowadays, omitting portions that are out of date. In this book he brought together his deductions from his own observations, corrected by whatever he had been able to read of the work of others. He in fact summed up the Arctic knowledge of his day and laid a firm foundation for future advance.

The summer seasons of 1816 and 1817 were remarkable for the openness of the seas north of Spitsbergen and the retreat of the pack. Whalers carried the report of this condition of affairs home with them, and they falsely predicted that the season of 1818 was likely to be yet more open. Accordingly influences were brought to bear on the British Government to send up another Arctic expedition to take advantage of so unusual a chance. Sir John Barrow, Secretary to the Admiralty, proved favourable to the idea, and two expeditions were equipped and sent out—one to the north-west under Ross and Parry, the other to Spitsbergen under Buchan and Franklin. Captain

Buchan commanded the *Dorothca*, Lieutenant John Franklin the *Trent*.

They sailed from the Thames on the 25th of April, sighted Bear Island on the 24th of May, and a few days later were at their rendezvous in Magdalena Bay, where they waited some time to let the neighbouring ice-pack break up. They used the interval to make many expeditions in the neighbourhood. "One of our earliest excursions in this bay was an attempt to ascend Rotge Hill, upon which may now perhaps be seen, at the height of about 2000 feet, a staff that once carried a red flag, which was planted there to mark the greatest height we were able to attain, partly in consequence of the steepness of the ascent, but mainly on account of the detached masses of rock which a very slight matter would displace, and hurl down the precipitous declivity, to the utter destruction of him who depended upon their support, or who might happen to be in their path below. The latter part of our ascent was, indeed, much against our inclination; but we found it impossible to descend by the way we had come up, and were compelled to gain a ledge, which promised the only secure resting-place we could find at that height. This we were able to effect by sticking the tomahawks, with which we were provided, into crevices in the rock, as a support for our feet; and some of these instruments we were obliged to leave where they were driven in, in consequence of the danger that attended their recovery. We followed the ledge we had thus gained to the head of a bank of snow, which filled up a valley to the east of the hill, and found the snow sufficiently soft for our feet to make an impression upon it, or I really believe we should have been obliged to wait until we could have obtained ropes from the ship to facilitate our descent. As it was, this bed of snow was so steep that, had we missed our footing, we must have rolled down and been precipitated into the sea, as invariably happened with the birds we shot¹."

The season, instead of being an open one, as was expected, proved to be the very reverse. The ships put to sea again on June 7th, but were soon beset, and only

¹ Capt. A. H. Markham, *Northward Ho*, p. 240.

after some days' delay were they able to get free and take refuge in Fairhaven. Then it was that they discovered the worthlessness of Phipps' chart and proceeded to resurvey the neighbourhood. The admirable chart still employed was the result of their labours. Many hills around Fairhaven were climbed, and no less than 40 reindeer shot on Vogelsang alone. The deer were wary and hard to approach. Nowadays you may spend a whole summer on Vogelsang Island, and you will not see a single reindeer. In Robbe Bay, which they visited, they found still standing two large wooden huts, in old days the property of the Danes. Lying before them were three boats lashed together drawn up on the beach, near some graves. On the northern extremity of one of the Norways they counted no less than 243 graves, many with Dutch inscriptions, and they noticed the ruins of the old Zeeland cookeries.

Putting to sea again on July 6th, they reached latitude $80^{\circ} 34'$, where they were completely beset. This was their farthest north. While in the pack they noticed its strong southerly drift, which was destined to defeat Parry, nine years later, and to help Nansen. A few days later both ships were severely damaged in a storm; when it abated they returned to Fairhaven to refit, and on August 30th sailed for home. The expedition was not a great success, certainly, but it produced the first properly-surveyed map of any part of Spitsbergen—the north-west corner. For this reason it possesses some importance in Spitsbergen history. Moreover, it had the further effect of introducing some notions of the character of Arctic scenery to the British public. Lieutenant Beechey, who accompanied it, was a skilful and accurate draughtsman. He devoted himself to sketching. When his ship was beset off the north coast he carefully drew the wide extending view of islands and cliffs, glaciers, and rocky deserts that was displayed before him from Grey Hook in the east to Vogelsang in the west. This drawing of his was copied on a large scale, and (in 1819) exhibited "in the large Rotunda of Henry Aston Barker's Panorama, Leicester Square," where it attracted much attention. A little descriptive pamphlet containing a small print of the panorama was sold to visitors, and rare copies of this are all the record that remains of the exhibition.

In 1821 a young German physician, M. W. Mandt, sailed on the Hamburg whaler *Blucher* to the Greenland and Spitsbergen seas. He brought back anatomical notes and preparations and published his observations in the form of a thesis for the degree of Doctor of Medicine in July, 1822. All that he says about the voyage is this, "Ad gradum usque octogesimum primum latitudinis Poli arctici, Spitzbergam praetervecti, pervenimus."

The seeds of interest in Arctic questions were now firmly implanted in the mind of the European public, and in process of time they produced a harvest of results that has not even yet been garnered in. The only expeditions that can here be noticed, however, are those that made landings on the shores of Spitsbergen. The question of the true figure of the Earth next determined a scientific visit there. In 1823 Sir Edward Sabine was sent on H.M.S. *Griper* (Captain Clavering) to make pendulum observations at different points in the far north. One of the positions chosen was Fairhaven. They anchored there on July 1st. Sabine set up his station on a low, dry and level piece of ground at the south-west extremity of the Inner Norway island. While he was making his pendulum and magnetic observations, Clavering sailed, from July 4th to 10th, to explore the edge of the pack. He found it against the land, east of the Norways and stretching away unbroken round as far as long. 11° W., where it turned south-west. They saw no whalers whatever at Fairhaven, and they state that the place was now only frequented by Norwegian sloops. About July 18th the *Griper* sailed for Greenland¹.

One of the results of this visit was to convince Sabine that Spitsbergen was the northern land-surface *par excellence* adapted for accurate measurement upon it of a fairly long arc of the meridian—an operation of extreme importance for throwing light upon the true figure of the Earth. He began to make enquiries as to the accessibility of the country, as to its climate, and the conditions of life upon it. Of course he was thus put in communication with Mr Crowe, British Vice-consul at Hammerfest, who was the energetic

¹ Sabine's observatory is one of the most accurately fixed points in Spitsbergen. Lat. $79^{\circ} 49' 57'' .8$ N., Long. $11^{\circ} 40' 30''$ E.

promoter at that time of the Norwegian hunting industry around the shores of Spitsbergen. Crowe was applied to for the results of his experience and in reply he sent a communication to Lord Melbourne, in which he stated that he was in the habit of sending sloops to Spitsbergen year after year. In particular he stated that in 1825 he sent a 40-ton cutter which, after visiting his own establishment in Ice Sound, sailed round to Walden Island without difficulty. Crowe himself once spent a winter at Ice Sound¹.

Fortified by his enquiries, Sabine wrote a letter to Davies Gilbert, M.P., dated 8 Feb. 1826, formally proposing that Government should send an expedition to measure an arc of the meridian on Spitsbergen². From that time onwards the matter was intermittently mooted and Sabine never ceased to press forward the undertaking. Norden-skiöld in his day took up Sabine's idea and some of his Spitsbergen expeditions were made for the purpose of reconnoitring the line to be measured and determining the positions suitable for trigonometrical stations. In the last years of the 19th century the measurement was finally accomplished, the idea that originated with Sabine being carried out by combined parties of Swedes and Russians, to the discredit of successive British Governments. The proposal, I suppose, was concerned with a problem, apparently too abstract to appeal to the British public, who on the other hand were at that time always delighted to hear of the doings of naval expeditions in which the element of pure adventure was large. Such an expedition was sent out in 1827, when H.M.S. *Hecla* under the command of Captain Parry was despatched to try and reach the North Pole³.

"In April, 1826," relates Parry, "I proposed to the Rt. Hon. Viscount Melville, First Lord Commissioner of the Admiralty, to attempt to reach the North Pole, by means of travelling with sledge-boats over the ice, or

¹ Parry's *Narrative*, p. 137 note.

² Printed in *The Quarterly Journal of Science and the Arts* (Royal Institution), Vol. XXI. pp. 101-108. London, 1826.

³ Someone must have visited Spitsbergen in 1826, because it is recorded in the archives of the Raleigh Club (parent of the Geographical Society and the Geographical Club) that Captain Brooke presented to the Club for its dinner on Feb. 7th, 1827, a haunch of reindeer venison from Spitsbergen.

through any spaces of open water that might occur. My proposal was soon after referred to the President and Council of the Royal Society, who strongly recommended its adoption ; and an Expedition being accordingly directed to be equipped for this purpose, I had the honour of being appointed to the command of it ; and my commission for His Majesty's ship the *Hecla*, which was intended to carry us to Spitsbergen, was dated the 11th of November, 1826.....The hopes I had formed of being able to attain this object, and the plan now suggested for putting it into execution, were principally founded on a similar proposition formerly made by my friend and brother-officer, Captain Franklin, who judging of this enterprise by his own experience, as well as by that of his associates, Captains Buchan and Beechey, though by no means thinking lightly of the labour and hazard attending it, had drawn up a plan for making the attempt, and himself volunteered to conduct it.....It was proposed to take with us resources for 90 days ; to set out from Spitsbergen, if possible, about the beginning of June ; and to occupy the months of June, July, and August, in attempting to reach the Pole, and returning to the ship ; making an average journey of $13\frac{1}{2}$ miles per day."

In Parry's Instructions he was ordered not only to proceed northwards over the ice-pack but to organize other investigations, the like of which had never previously been undertaken in Spitsbergen. The passage has so great an historical interest that I quote it in full.

"Previous to your departure from the *Hecla*, you are to direct Lieutenant Foster to proceed, in a boat fitted for the purpose, as soon as the season shall be sufficiently advanced, to survey the Northern and Eastern Coast of Spitsbergen, and to continue down the latter as far as may be practicable ; with instructions to him to make observations on the dip, variation, and intensity of the Magnetic Needle ; the temperature ; the barometric pressure of the atmosphere ; and such other meteorological phenomena as he may be enabled to notice ; the extent of open water ; the quantity, the position and nature of the ice ; the depth, temperature, and specific gravity of the sea ; and you will also direct him to pay attention to the number of Whales he may meet with, in

order that an opinion may be formed as to the expediency and practicability of extending the Whale Fishery on that Coast; and you will give him such directions, as to the time he is to remain on this Survey, as will ensure his return to the Vessel, so as not to endanger her being shut up in the Ice for the Winter. While these two operations are carrying on by yourself and Lieutenant Foster, you are to instruct the Officers left in the Command of the *Hecla*, to employ the Officers and Men remaining on board in embracing every opportunity of making all such observations as may best contribute to the benefit of general Science, and collect and preserve all such specimens of Subjects of Natural History, whether Animals, Plants, or Minerals, as may be deemed new or curious."

The *Hecla* accordingly weighed from the Nore on the 4th of March, 1827, and was towed out by a steamer, which quitted her the same evening. On April 19th she put in to Hammerfest to take reindeer on board, the idea being to employ them as draught-animals on the ice-pack—an idea that was not put into execution. At Hammerfest Parry met various residents, especially Messrs Crowe and Woodfall, British merchants already often mentioned in the present volume. On April 29th they weighed. The first ice was encountered on May 5th. On the 9th they were joined by two Peterhead whalers, and several more were seen next day. "None of the ships had yet taken a single whale, which, indeed, they never expect to do to the southward of about 78° ." On the 11th they saw Black Point, at which time they were in company with 12 whalers, two of them being Dutch. On the 14th they arrived off Hakluyt Headland but found Fairhaven full of ice. In this neighbourhood they weathered a severe storm, and then on the 15th drifted eastward in the ice past Cloven Cliff along the north coast, near Red Beach. They continued drifting eastward in the ice, sometimes in considerable danger from heavy pressures. Lieut. Ross landed on Red Beach on the 22nd and found two graves on a hillock dated 1741 and 1762. They landed a boat and reserve of provisions on Red Beach on the 29th and then were carried across the mouth of Wijde Bay. On June 6th Parry visited Mossel Bay, hoping to find it a suitable harbour for the

Hecla, but in his opinion it was not, though Nordenskiöld used it successfully about half a century later. All this time the weather was beautiful. Day after day during more than three weeks "we had a clear and cloudless sky, scarcely any wind, and, with the exception of a few days previously to the 23rd of May, a warm temperature in the shade and quite a scorching sun." They rounded Verlegen Hook on the 8th of June and presently got free of ice "after a close and tedious besetment of 24 days." On the low shore near Verlegen Hook they saw a house, which appeared in a ruinous state, and which they supposed to have belonged to some Russian settlers. They now thought to examine Brandywine Bay for a suitable harbour but ice rendered access impossible, so they sailed about on their quest and on the 13th visited Walden Island but took no comfort from it. Next day they were in lat. $81^{\circ} 5' 32''$ N. and might have gone further to the N.E. had there been any reason for it. On the 16th they landed on Walden Island and climbed about 300 feet for a view. They saw the Seven Islands and believed they saw "some land far beyond them to the eastward." It is marked on their chart, but no such land really exists. They next sailed for Little Table Island "with some slight hope that the rock off its northern end might afford shelter for the ship." Ross landed on the small rock on the 17th and deposited a small store of provisions, as they had also on Walden Island. "The islet consists of gneiss, having garnets imbedded in some specimens...Lieutenant Ross described the rocks as covered with abundance of very large *tripe-de-roche*, some reindeer moss, and other lichens; and there was abundance of good water in pools. A few brent-geese, eider-ducks, and a *Lestris Parasiticus*, were all the animals seen."

Finally they sailed back to Verlegen Hook, where they fortunately noticed Treurenberg Bay, which is marked on the copy of Gerard Van Keulen's Giles and Rep chart, which they had with them. Parry examined it in a boat on the 19th, found the cove, since known as Hecla Cove, and perceived that it was perfectly suited for his purpose. As a matter of fact it served well; but it was really a very dangerous position for a ship, as the Dutch whalers of the

previous century could have told him. The season of 1827 from this time forward was a remarkably open one. In most seasons Treurenberg Bay, if accessible at all, is so only for a short time. No whaler would have ventured to leave his ship for two months in Hecla Cove. He would expect the mouth of the bay to have been closed at any moment and his ship to have been shut in for the winter, without hope of release. The reader will remember what the Dutch whalers told Croisic in 1693 about the danger of this locality. As a matter of fact Mossel Bay would have been a safer anchorage than the one chosen, for if Wijde Bay is open at all, it remains open longer than the bays further east. Parry had colossal luck.

After berthing the ship and making all necessary arrangements Parry, Ross, Beverly, and Bird, with two boats, and provisions for 71 days, left the *Hecla* on June 21st. Crozier accompanied them with one of the ship's cutters for the first part of the way. They landed on Low Island on the 22nd and made a *cache* of provisions. On the 23rd they landed on Walden Island, whence Crozier and his boat were sent back. The same day they also landed on Little Table Island. Northward only a small quantity of loose ice was in sight, a most unusual condition of affairs. At midnight they had rowed to $80^{\circ} 51' 13''$. Henceforward their progress does not really concern us, but we may briefly follow it. Twelve hours later, in $81^{\circ} 12' 51''$ they first took to the ice and began their journey over it on June 24th, taking to the water when they could, and hauling their boats over the floes when they had to. They found the pack a very different kind of thing from what they had expected. They made unpleasant acquaintance with its hummocks and soon realized that the flat surface they had looked for was not a common feature. They also found how soft is the surface in the summer and how laborious is the work of dragging things over it. They also discovered the merit of sledges running on *ski*. Before long the leaders of the expedition realized that the surface over which they were travelling was drifting southwards almost as fast as they could advance northwards. Ultimately this movement beat them. They kept the fact secret from their men, in order not to discourage them, but

the men soon began to realize it. On June 29th they were only in $81^{\circ} 23'$. Fogs almost continuously enveloped them. Rain was frequent. "The eye wearied itself in vain to find any object but ice and sky to rest upon; and even the latter was often hidden from our view by the dense and dismal fogs which so generally prevailed. For want of variety, the most trifling circumstance engaged a more than ordinary share of our attention; a passing gull, or a mass of ice of unusual form, became objects which our situation and circumstances magnified into ridiculous importance." The surface of the ice was so soft that "the men, in dragging the sledges, were often under the necessity of crawling upon all-fours, to make any progress at all." Once it took 2 hours to go 150 yards. When, they asked, were they going to reach the "main ice" which Captain Lutwidge described as "one continued plain of smooth, unbroken ice, bounded only by the horizon"?

On July 10th they were in $82^{\circ} 3' 19''$. On the 14th it rained incessantly for 21 hours, "sometimes falling with great violence and in large drops." Between the 17th and the 20th they only made 5 miles northing. On the 22nd after a long and apparently successful march they were only in $82^{\circ} 43' 5''$. The men began to remark that "we were a long time getting to this 83° ." In $82\frac{3}{4}^{\circ}$ the floes were all still very small, only one piece being in sight on the 25th on which they could venture to trust the boats while they rested. About 7 a.m. on the 23rd they reached their highest latitude, which they reckoned was $82^{\circ} 40'$. Their highest observed latitude was $82^{\circ} 40' 23''$. At the extreme point of their journey they were 172 miles from the *Hecla*. "To accomplish this distance we had traversed, by our reckoning, 292 miles, of which about 100 were performed by water previously to our entering the ice. As we travelled by far the greater part of our distance on the ice three, or not unfrequently five times over, we may safely multiply the length of the road by two and a half; so that our whole distance, on a very moderate calculation, amounted to 580 geographical, or 668 statute miles, being nearly sufficient to have reached the Pole in a direct line."

On the 27th they turned southward. They gained open water on Aug. 11th in $81^{\circ} 34'$ after 48 days on the ice.

They landed next day on the rock north of Table Island and named it after Lieutenant Ross. Then they went to Walden Island and took a good rest there. Next day they named Beverly and Bird Islands, and on the 15th they landed on Low Island, of which they made an extensive examination, for bad weather delayed them there. They could nowhere find "the hexagonal stones mentioned by Dr Irving in Phipps's Voyage, as occurring about the northern part of the island." Not till the 21st were they finally able to get away. They arrived on board the *Hecla* the same evening and found all well.

During Parry's absence Lieutenant Foster, after making an accurate plan of Treurenberg Bay, proceeded on the survey of Hinloopen Strait, the shores of which he mapped as far to the southward as $79^{\circ} 33'$, near Foster's Islands. Geological observations were made. Foster recognised distinctly almost every feature of the lands delineated in the Giles and Rep chart, though their position in latitude and longitude was very erroneously laid down. There was proof enough however that the old chart was the result of sketches made upon the spot. That this fact should have required proof in 1827 shows how completely the memory of Dutch exploration done only a hundred years before had faded away. The neighbourhood of Treurenberg Bay, writes Parry, "like most of the northern shores of Spitsbergen, appears to have been much visited by the Dutch at a very early period; of which circumstance records are furnished, on almost every spot where we landed, by the numerous graves which are met with. There are 30 of these on a point of land on the north side of the bay¹. The bodies are usually deposited in an oblong wooden coffin, which, on account of the difficulty of digging the ground, is not buried, but merely covered by large stones; and a board is generally placed near the head, having, either cut or painted upon it, the name of the deceased with those of his ship and commander and the month and year of his burial. Several of these were 50 or 60 years old; one bore the date 1738; and another, which I found on the beach to the eastward of Hecla Cove, that of 1690², the inscription

¹ Marked on the accompanying chart. There is a view of and from these graves in Torrell's *Svenska Expeditionen till Sp. ar 1861* (Stockholm, 1865), p. 80.

² The same grave was seen by Nordenskiöld.

distinctly appearing in prominent relief, occasioned by the preservation of the wood by the paint, while the unpainted part had decayed around it."

Foster specially noted the great glaciers descending to the sea between Treurenberg and Lomme Bays, "faithfully laid down on the Dutch chart." He saw no whales, but observed bones and skeletons of them "in most parts where we landed" on the east coast. At Hecla Cove they killed 70 reindeer. "They were usually met with in herds of from 6 or 8 to 20, and were most abundant on the west and north sides of the bay." They also killed three bears. The hill nearest Hecla Cove was climbed and found to be about 2000 feet high. "The officers who remained on board the *Hecla* during the summer described the weather as the most beautiful, and the climate altogether the most agreeable they had ever experienced in polar regions." It must have been an exceptional season.

On August 28th the *Hecla* sailed from Treurenberg Bay, took on board stores left at Red Beach, whence not a scrap of floating ice was visible, rounded Hakluyt's Headland on the 30th, and bade farewell to the Foreland on the 31st. She arrived in the Thames on October 6th and thus completed the most generally successful arctic expedition which up to that time had visited Spitsbergen, besides establishing a new arctic record for highest North.

Just as the *Hecla* was losing sight of Spitsbergen the modest sloop conveying the Norwegian geologist Keilhau was nearing South Cape. We have already referred to Keilhau's observations, made in the weeks immediately following, both at South Cape and on Edge Island. Keilhau was the first Scandinavian man of science to visit Spitsbergen. The scientific exploration of that country was destined to be mainly carried out by Scandinavians, and Keilhau deserves to be remembered as their forerunner. He went up in the most modest manner, with no Government backing or flourish of trumpets, but behind his modesty there was the determined scientific spirit. He showed that great funds were not required, but that a man with the proper intellectual equipment who was willing to endure hardship and to work on land could attain valuable results at very small expense. His example was not immediately followed, but ultimately it bore rich fruit. Balthasar

Mathias Keilhau deserves his little niche of fame in the temple of scientific honour¹. It was ten years before another Scandinavian followed Keilhau's example. In 1837 Professor Sven Lovén, of Stockholm, visited the west coast of Spitsbergen for the purposes of geological and general scientific study. His journal has never, I believe, been published, but a passage from it describing his boat expedition up King's Bay is quoted by Torrell². It is also recorded that he dredged along the west coast. He visited Green Harbour in Ice Sound and doubtless other west coast bays. Sven Lovén was the man who, 20 years later, inspired Torrell to undertake a scientific exploration of Spitsbergen. Torrell's expedition of 1858 and the series of important Swedish expeditions of later years, with which the name of Nordenskiöld is so prominently connected, were the direct result of Lovén's initiative, and, though I have never seen the fact authoritatively stated, there can be little doubt that Lovén was himself prompted by Keilhau, who just did not live long enough to hear of Torrell's start. With these Swedish expeditions we are not here concerned. They belong to the later branch of our subject which lies beyond the scope of the present volume.

In fact our story is almost told, but there still remain two more expeditions which may properly be brought within it. These were the visits paid to Spitsbergen in 1838 and 1839 by the French cruiser *La Recherche*. That vessel was sent out by the French Government to make a study of the northern parts of Norway and Sweden and the neighbouring lands and waters. Her visits to Spitsbergen were only minor incidents in two seasons' cruising. Messrs Crowe and Woodfall were again helpful to this expedition.

In 1838 the *Recherche* anchored in Schoonhoven of Bell Sound on July 25th, and the bay was unjustifiably

¹ Born 1797 near Christiania. Devoted himself to Scandinavian geology, Professor in University of Christiania from 1826. Studied specially the geology and natural history of the Nordland. 1827 visited Bear Island and Spitsbergen. 1828 travelled in Finmark. 1831 published his Spitsbergen book. There is a portrait of him in the Geological Museum at Christiania. He published his autobiography in 1857, and died 1 Jan. 1858. Everest, who met him at Hammerfest in 1827, describes him as "a young man of great talents and enthusiasm... equalled by few in his power of enduring fatigue."

² Vide L. Passarge's translation of Torrell's *Nordenskiöld* (Jena, 1869), pp. 287-291.

renamed after her. When the number of interesting events are remembered, which took place in that bay centuries before any French ship ever went there—Pelham's wintering, the English settlement there, the Russian settlement, the yearly gathering of the Dutch whalers at the end of the season—it was really impertinent for a mere visitor at so late a date to arrogate the right to suppress all these old memories and bury them beneath a new name given in record of a very unimportant occurrence. Such, however, has been the way of modern visitors to Spitsbergen, and perhaps the worst of all offenders in this kind are the Swedes.

The officers of the *Recherche* set up an observatory on Observatory Hill (564 m.), the ascent of which is not so difficult as their account implies. They made a number of observations on the meteorology, the geology, and botany of the neighbourhood, and so forth; they likewise made an excellent survey of the bay. On the 5th of August the *Recherche* sailed for Norway. She returned again next year, having on board Monsieur Biard and his young wife, who wrote an account of her visit to the arctics. This time they anchored in English Cove of Magdalena Bay and set up their observatory on the burial-ground. A boat expedition was made as far as Amsterdam Island, and Magdalena Bay was surveyed. The *Recherche* quitted Spitsbergen for good on August 13th. The results of these two short visits to the bays of Spitsbergen were described in the general account of the voyage, and they were illustrated by some most admirable views of the scenery, which are by far the best ever published before the days of photography. What may have been the value of the scientific observations I am not in a position to affirm.

Another French man-of-war, *La Manche*, visited Ice Sound in 1892 with Mons. Rabot on board, whilst the British Training Squadron spent a few days in Bell Sound in 1895, but these incidents fall beyond the limits of the present enquiry. A new volume of Spitsbergen history opens with Sven Lovén's visit in 1837; the future historian of the modern scientific exploration of Spitsbergen must make that his point of departure. The chronological list of voyages and events here appended may be of service to him. It does not claim to be complete.

LIST OF THE PRINCIPAL VOYAGES TO SPITSBERGEN, RECORDED FROM 1847 TO 1900¹.

1847. Capt. Lund, in the sloop *Antoinette*, navigated Walter Thymen's Strait for the first time on record (Heuglin, vol. i. p. 175).
1855. Observations on the Birds of West Spitsbergen, by Messrs Evans and Sturge (*Ibis*, 1859, pp. 166-174).
1856. Lord Dufferin visited English Bay in his yacht, the *Foam*.
1858. Swedish Expedition: Torrell, Quennerstadt, and Nordenskiöld in the *Frithiof*.
Lamont took his yacht, the *Genevra*, to Spitsbergen and explored Wybe Jans Water.
This year the walrus hunters rediscovered Heley Sound (Passarge's *Torrell and Nordenskiöld*, p. 474). The discovery was probably made by Johannes Neilsen, of Tromsø (*R. G. S. Proc.* 1864-5, p. 308).
1859. Lamont in the yacht *Genevra* again hunted in Wybe Jans Water. The Norwegian skipper Elling Carlsen, in the brig *Jan Mayen*, hunted in Olga Strait, and came within two miles of Swedish Foreland.
1861. Torrell, Nordenskiöld, and other Swedes, in the *Aeolus* and *Magdalena*, spent four months exploring the coast of Spitsbergen.
1862. A party climbed the peak of Middle Hook in Bell Sound (Record found by Koldeway, in 1868).
1863. Elling Carlsen, in the *Jan Mayen*, circumnavigated the whole Spitsbergen group for the first time.
1864. Nordenskiöld and other Swedes, in the *Axel Thorsen*, went up to complete the work of preliminary survey for the measurement of an arc of the meridian.
Messrs E. Birkbeck and A. Newton, in the yacht *Sultana*, made observations on the Birds of Spitsbergen (*Ibis*, 1865, pp. 199 and 496). They found three Norwegians living in the Russian hut at Advent Point.
The Norwegian walrus-skipper, Tobiesen, Mathilas, and Aarström, having sailed round North-east Land, were compelled to abandon their sloops. They rowed up Hinloopen Strait, and round to Ice Sound (*R. G. S. Proc.* ix. 1864-5, p. 308).
A sloop this year navigated Heley Sound (Lamont, *Arctic Seas*, p. 252).
1867. Captain Rönnbäk, of Hammerfest, circumnavigated West Spitsbergen (Brögger and Rolfsen's *Nansen*, London, 1896, p. 267).
1868. Nordenskiöld and other Swedes, in the steamer *Sofia*, visited especially the north coast of Spitsbergen and North-east Land.
The first German Arctic expedition, under Koldeway, in the *Grönland*, explored principally the east coast and bays of Spitsbergen and Hinloopen Strait. They circumnavigated West Spitsbergen.
1869. Lamont, in the yacht *Diana*, hunted chiefly in and about Wybe Jans Water. He passed through Heley Sound in a boat.
Between 1868 A journey made by Dorst and Bessels to Spitsbergen, "auf and 1870. Rosenthal'schen Fahrzeugen," is mentioned by Heuglin.
1870. M. Th. von Heuglin explored chiefly the east coast and the coasts of Edge and Barents Islands.
Drs Nathorst and Wilander made a geological expedition to Ice Fiord.

¹ For references see Bibliography.

1871. Lamont, in the yacht *Diana*, visited the west coast of Spitsbergen and the south coast of Edge Island, also the Ryk Yse Islands.
 Leigh Smith, in the yacht *Sampson*, explored the north coast of Spitsbergen, Hinloopen Strait, the Seven Islands, and the north coast of North-east Land (the *Field*, 1872, p. 45).
 This year tourists were for the first time taken to Spitsbergen by a small Hammerfest steamer.
1872. Leigh Smith, in the yacht *Sampson*, visited the north coast of Spitsbergen.
 Graf Wilczek, in the *Isbjörn*, surveyed Horn Sound.
 The walrus-skippers, Altman, Johnsen, and Nilsen, landed on King Carl's Island (*Petermann Mitt.* 1873, p. 121 and Tafel 7).
 A Swedish Company, formed to exploit the coprolite beds, built a house (called Nordenskiöld's house), at Cape Thordsen, and laid down a tram-line; but the enterprise was abandoned (see *Redogörelse för den sv. polarex. år 1872-3*, p. 10, by Nordenskiöld, in *Bihang K. S. Vet. Akad. Hand.* 1875, Bd. 2, no. 18).
 Several Norwegian sloops being shut up in the ice, an unsuccessful attempt was made to rescue them by a steamer sent from Hammerfest, in November, but ice prevented her from advancing further than South Cape. Seventeen men who abandoned their sloops off Red Beach took refuge in the new house at Cape Thordsen, and all died there.
 Swedish Polar Expedition, under Nordenskiöld, in the s.s. *Polhem* and the brig *Gladan*, wintered in Mossel Bay. Norwegian sloops were beset at Grey Hook, two off Red Beach. The Grey Hook crews wintered with the Swedes.
1873. Nordenskiöld explored North-east Land, and crossed it with sledges. On June 6th sloops arrived at Mossel Bay, and on June 12th relief was brought by Leigh Smith, in the steam-yacht *Diana*. Visits were paid to the Seven Islands and other places. Leigh Smith also visited the Seven Islands.
 Dr R. von Drasche-Wartinberg visited Ice Sound for geological study.
1874. The Marquis of Ormonde and Mr Henry Osborn, in the yacht *Mirage*, visited Ice Sound on a sporting expedition.
 The English whalers, David and John Gray, made investigations as to the nature and drift of the ice-pack near Spitsbergen.
1878. The Norwegian North Atlantic Expedition visited South Cape, Advent Bay, and Fairhaven.
1879. A very open year north of Spitsbergen. Skipper J. Kjelsen, of Tromsø, sailed in open sea 60 miles north of the Seven Islands.
1880. Leigh Smith, returning from Franz Josef Land, followed the edge of the pack to Hope Island, and went up Wybe Jans Water to Heley Sound.
1881. The U.S. s. *Alliance* visited Spitsbergen waters searching for the *Jeanette*.
 A tourist-steamer went to Ice and Bell Sounds. Amongst its passengers were Messrs A. H. Cocks, Abel Chapman, and Philipps Wolley, who made and published observations on the natural history. Wolley (p. 331) tells of one Gamle Becke, a Norwegian hunter, who yearly at this time was wont to come up to Spitsbergen in a little open boat, following the first whalers, to shoot reindeer. "He is an old man, but he comes alone, and, though he is glad now and then to be taken in tow by a bigger vessel, he has no fear of the Northern seas."
1882. Cocks and Rabot went up to Ice Sound on the 40-ton smack, *Cecilie Malène*.
 Nathorst and De Geer, in the *Bjona*, made an important geological expedition to the bays of the west coast.
- 1882-3. A Swedish Meteorological Expedition, in conjunction with the International Polar Exploration movement, settled for a year at Cape

- Thordsen. Lieut. H. Stjernspetz, in Aug. 1883, explored and mapped Dickson Bay.
1883. Capt. Arnesen, a Norwegian hunting skipper, went to the Ryk Yse Islands and about Wybe Jans Water. In the north-east of Edge Island they shot some "castrated and ear-marked" reindeer, which must have been some that escaped from Nordenskiöld's settlement at Mossel Bay in the winter of 1872-3 (*Ymer*, iv. p. 88).
1884. Skipper Johannesen, of Tromsø, approached Wiche Islands from the east; Hemming Andreassen reached them from the south (*Ymer*, ix. 65).
1885. The doings of the Norwegian hunting sloops this year are recorded in *Ymer*, v. p. 232. They got as far as Brandywine Bay, and down Hinloopen Strait to Wahlberg Island.
1886. Dr Kuckenthal made an unimportant visit to Advent Bay as passenger in a small whaler.
1887. Skipper E. H. Johannesen rediscovered an island east of North-east Land (*Ymer*, vii. p. 179).
1888. Sir Henry Gore Booth, in his yacht *Lancashire Witch*, visited Spitsbergen on a sporting expedition, and reached the north cape of North-east Land.
- 1888-9. Mr Arnold Pike built a hut on the north shore of Danes Island, and wintered there.
1889. Skipper Andreassen explored Wiche Islands (*Ymer*, ix. p. 64). Herren W. Kükenthal and A. Walther, of Bremen, visited the east side of Spitsbergen, landed on Wiche Islands, proceeded up Hinloopen Strait, and circumnavigated West Spitsbergen.
1890. Gustaf Nordenskiöld and others visited Spitsbergen and crossed overland from Horn Sound to Bell Sound, and from Advent Bay to Coles Bay, besides entering various harbours on a scientific mission. This year Captain Bade brought up a tourist ship to Spitsbergen, and continued to do so annually till 1896, and often later.
1891. Lec Cremer visited Spitsbergen with Capt. Bade, and made a study of the coal beds in Advent and King's Bays. Prinz Heinrich von Bourbon visited Spitsbergen in the yacht *Fleur de Lys*.
1892. Prinz Heinrich von Bourbon again visited Spitsbergen in the same yacht. The Duke of Hamilton visited Ice Sound in the yacht *Thistle*. The French cruiser *La Manche* visited some of the bays of the west coast. Mons. Rabot landed in Sassen Bay and explored the Sassendal to the mouth of Fulmar Valley.
- 1893-4. The Norwegian sailors Bräkmö and Oxnas wintered in Bell Sound, and supported themselves by hunting (*Petermann Mitt.* 1894, p. 248).
1894. Mr Wellman with an American Polar Expedition was wrecked near Walden Island. They built a hut there, and ultimately escaped over the ice-pack and in boats to Fairhaven. Colonel Feilden and Mr Parker visited Green Harbour and Danes Island in the yacht *Saïde*. The Orient Company's s.s. *Lusitania* visited Spitsbergen and reached 80° 30' N. in open sea. Mr V. H. Gatty landed in Sassen Bay and climbed Mount Lusitania (*Alpine Journal*, xvii. p. 309).
- 1894-5. Martin H. Ekroll of Skroven in Lofoten, with the schooner *Willem Barents*, wintered at Habenicht Bay and had parties at Andersen Island and at Botsche Island (so he told me, but see *Petermann Mitt.* 41, p. 247).
1895. Visit of H.M. Training Squadron to Bell Sound.
- 1895-6. Klaas Thue and another Norwegian sailor wintered at Advent Bay. Their journal was published by the *Aftenposten* of Christiania.
1896. Baron De Geer made a geological expedition to Ice and Bell Sounds.

- Sir Martin Conway and others explored the interior between Ice and Bell Sounds and Agardh Bay. They crossed Spitsbergen for the first time and visited the bays of the north coast and Walden Island, and passed down Hinloopen Strait to near Wiche Islands.
- Capt. Bade took the tourist steamer *Erling Jarl* to lat. 81° 37' N.
- The Vesteraalen Steamship Co. built a tourist hut at Advent Point and established a weekly service of tourist steamers from Tromsø during the summer. The service was discontinued and the hut abandoned after 1897.
- Herr Andrée established himself by Pike's house in Danes Gat, set up his balloon-house there, and made ready for his balloon attempt to reach the North Pole, but the season was unfavourable, so he returned to Sweden.
1897. Herr Andrée returned to Danes Gat, and on July 11th ascended with two companions in the balloon *Eagle*. They were not afterwards heard of. In connexion with Andrée's enterprise and its unfortunate end, the following pamphlet (which I have not succeeded in finding) is worth mention: *Beschreibung einer wunderbaren Luftreise von den Spitzbergen nach dem Monde*, 1787, 8vo. The place of publication is not recorded.
- Parties from Andrée's ship, the *Virgo*, made surveys of Smeerenburg Bay and the neighbourhood.
- Mr Arnold Pike cruised east of Spitsbergen and landed on Wiche Islands.
- Sir Martin Conway and Mr Garwood explored the interior between Klaas Bille and Wijde Bays and between King's Bay and Ice Sound. They also surveyed Horn Sound and climbed Horn Sunds Tind.
- This year the Spitsbergen *Gazette* was published at the tourist hut at Advent Point.
1898. The German Government sent a vessel, the *Olga*, to examine the possibility of establishing a fishery on the west coast of Spitsbergen. She visited the western bays.
- Drs F. Römer and F. Schaudrinn went to Spitsbergen and Wiche Islands on behalf of the Berlin Natural History Museum, joining a private expedition for the purpose of making zoological observations and collections.
- The Prince of Monaco landed on Hope and Barents Islands and at various points in Ice Sound and made expeditions inland.
- Natherst made an important scientific expedition, circumnavigating Spitsbergen and landing on Giles Land and Wiche Islands, which he thoroughly explored.
- Swedish and Russian expeditions began the measurement of an arc of the meridian in Spitsbergen.
1899. The Swedish and Russian expeditions continued their work, and climbed a high peak near Wijde Bay. They wintered in Spitsbergen in 1899-1900.
- The Prince of Monaco surveyed Red Bay and its neighbourhood and visited other parts of the north coast.
- This year a Norwegian skipper brought away a cargo of coal from Spitsbergen.
1900. A very icy season in West Spitsbergen: even Ice Sound could not be entered till late, but Capt. Bade took a tourist steamer to Franz Josef Land.
- The Swedes and Russians completed the work of measuring an arc of the meridian.
- A coal-shaft was sunk by a Trondhjem syndicate near the shore at Advent Bay. After blasting through 40 feet of clear fossil ice, solid rock was reached, and 20 feet lower a seam of coal 10 ft. thick. A Company was afterwards formed to work this deposit.

BIBLIOGRAPHY OF THE HISTORY AND GEOGRAPHY OF SPITSBERGEN.

The titles of books which have been consulted in the British Museum are followed by B.M. and the class-mark. B.R.H. indicates books consulted in the Royal Library at the Hague. Where scientific papers are referred to, it is because of the geographical information they contain. No attempt has been made to include a list of the papers dealing with the geology and natural history of Spitsbergen.

BIBLIOGRAPHIES.

- A. G. CAMUS. Mémoire sur la collection des Grands et Petits Voyages et sur la collection des voyages de Melchisédec Thevenot. Paris: 1802. 4to.
- FREDERICK MULLER. Essai d'une Bibliographie Néerland-Russe, etc. Amsterdam: 1 Oct. 1859. 4to. B.M. 11901, k. 3.
- P. A. TIELE. Mémoire bibliographique sur les journaux des navigateurs néerlandais réimprimés dans les collections de de Bry, etc. Amsterdam: 1867. 8vo.
- DR. JOSEF CHAVANNE. Die Litteratur über die Polar-Regionen der Erde von Dr. Josef Chavanne, Dr. Alois Karpf, Franz Ritter von Le Monnier. Wien: 1878. 8vo.
- ALEXANDER LESLIE. The Arctic Voyages of A. E. Nordenskjöld, 1858-1879. London: 1879. 8vo.
Appendix II. contains a list of books and memoirs relating to the Swedish Arctic Expeditions (150 titles of publications from 1857-1877). Passarge's German translation (Leipzig, 1880: 8vo) contains a complete bibliography (193 titles).
- P. A. TIELE. Nederlandse Bibliographie van Land- en Volkenkunde. Amsterdam: 1884. 8vo.
Valuable references to atlases and early Dutch voyages. B.M. Ac. 9621.

COLLECTIONS AND RÉSUMÉS OF VOYAGES, CONTAINING VOYAGES TO SPITSBERGEN.

GIO. BATTISTA RAMUSIO. *Delle Navigationi et Viaggi Raccolte da M.G.B.R.*, etc. 3 vols. Vol. iii. Venice: 1606. fol.

Contains (fol. 398) an Italian translation of G. de Veer's 'Three Voyages.'

J. THEODORE DE BRY and J. ISRAEL DE BRY. *India Orientalis*. Oppenheim: 1619. fol.

Part iii. contains G. de Veer's narrative, and Part xi. contains Hessel Gerrits' tract on the history of Spitsbergen.

GILLIS IOOSTEN SAEGHMAN. *Verscheyde Oost Indische Voyagien met de Beschrijvingen van Indien*. Amsterdam: various dates. 4to.

This is a collection of various pamphlets printed by Saeghman, which are here bound together behind a specially engraved title-page. Among the contents are included Barents' voyage of 1596-7, Raven's Journal, Vander Brugge's Journal, and the Journal of the winterers of 1634-5 who died. B.M. 10,057, dd. 50.

PURCHAS HIS PILGRIMES. 4 vols. London: 1625. fol.

The third volume contains various accounts of "Northerne Navigations."

ISAAC COMMELIJN. *Begin ende Voortganch vande Neederlandtsche Oostindische Compagnie. With Map*. Amsterdam: s.d. (1644). Oblong 4to. B.M. 566, f. 16-19.

Other editions in 1645 and 1646.

Vol. i. contains G. de Veer's account of Barents' voyage of 1596.

R.A. CONSTANTIN DE RENEVILLE. *Recueil des Voyages qui ont servi à l'établissement et aux progrès de la Compagnie des Indes orientales, formée Dans les Provinces-Unies des Pais-Bas*. 10 vols. 2nd edition. Rouen: 1725. 12mo.

Vol. i. contains a paraphrase of G. de Veer's account of Barents' voyage of 1596 (pp. 86-209).

An English translation of vols. i. and ii. is 'A Collection of Voyages undertaken by the Dutch East India Company, etc.' London: 1703. 8vo.

JOHN CHURCHILL. *A Collection of Voyages and Travels*. 6 vols. London: 1704-32. fol. Third and best edition. London: 1744-46. fol.

Vol. ii. contains the Journal of the seven Dutch Winterers of 1634-35 (p. 427); the story of the shipwreck in 1646 (p. 429); Le Peyrère's account of Greenland (p. 470). Vol. iv. (p. 808) contains 'God's Power and Providence,' and the Muscovy Company's map.

An Account of several late Voyages and Discoveries. I. Sir John Narborough's Voyage. II. Captain J. Tasman's Discoveries. III. Captain J. Wood's Attempt to discover a North-East Passage. IV. F. Martens' Observations made in Greenland, and other Northern Countries. London: 1711. 8vo.



J. F. BERNARD. *Recueil de Voyages au Nord*. 10 vols. Amsterdam: 1715-38. 12mo. B.M. 1045, a. 3.

Vol. i. contains "Quelques Mémoires pour ceux qui vont à la Pêche de la Baleine" (pp. 73 and 189), and "La Peyrère's Relation du Greenland" (p. 85). Vol. ii. contains a French translation of Martens' voyage.

JOHN HARRIS. *Navigantium atque Itinerantium Bibliotheca*. Or a complete Collection of Voyages and Travels. Now carefully revised, etc. 2 vols. in 4. London: 1744-48. fol.

Vol. ii. (a) pp. 387-398, contains information about Spitsbergen and the whale-fishery, but all of it at second hand.

JOHANN REINHOLD FORSTER. *Geschichte der Entdeckungen und Schiffahrten im Norden*. Frankfurt a. d. Oder: 1784. 8vo. English translation, London: 1786. 4to.

Contains an abstract of the usual voyages from Barents to Phipps.

J. L. H. S. DE PERTHES. *Histoire des Naufrages*. 3 vols. Paris: an.iii. (1795). 8vo. 2nd Edition, revised and enlarged by J. B. B. Eyriès. 3 vols. Paris: 1821. 12mo. B.M. 304, f. 9 and 1424 c.

Contains paraphrases of Barents' voyage of 1596-97, the Smeerenburg wintering in 1634-35, and the adventures of four Russian sailors in 1743.

A German translation of part of this collection is 'Geschichte der Schiffbrüche und Uiberwinterungen in Grönland, Nova Zembla und Spitzbergen.' Prag: 1798. 8vo. This also contains a translation of 'God's Power and Providence,' etc. B.M. 10,460, a. 3.

JOHN PINKERTON. *A General Collection of the best and most interesting Voyages*. etc. 17 vols. London: 1808-14. 4to.

Vol. i. contains the Journal of the seven Dutch winterers of 1634-35 (p. 535); the story of the shipwreck in 1646 (p. 537); Phipps' Journal (p. 538); P. L. Le Roy's "Russian Sailors in East Spitsbergen" (p. 595); and Dr. S. Bacstrom's Voyage to Spitsbergen in 1780 (p. 614).

J. F. LAHARPE. *Abrégé de l'Histoire Générale des Voyages* [Prévost's]. 24 vols. Paris: 1816. 8vo.

Vols. 15 and 16 contain the accounts of the voyages of Barents in 1596 and of Phipps in 1773.

SIR JOHN BARROW. *Voyages of Discovery and Research within the Arctic Regions*, from the year 1818 to the present time, abridged and arranged from the original Narratives. London: 1846. 8vo.

Chap. iii., Buchan's Voyage; chap. v., Sabine's visit to Spitsbergen; chap. ix., Parry's Voyage.



HISTORIES OF AND BOOKS ON THE WHALE FISHERY AND
SPITSBERGEN GENERALLY, AND ON THE GEOGRAPHY
OF SPITSBERGEN.

- J. K. J. DE JONGE. De opkomst van het Nederlandsch gezag in Oost-Indie, 1595-1610. Verzameling van onuitgegeven stukken uit het Oud-Koloniaal Archief. The Hague and Amsterdam: 1862, etc. 8vo. B.M. 9056, gg.
- NICOLAAS VAN WASSENAER. Historisch verhael alder ghedenck-weerdichste geschiedenisse die hier en daer in Europa . . . van de beginne des jaers 1621 . . . (tot Octobri . . . 1632) voorgevallen syn. 21 deel. Amsterdam: 1622-35. 4to. B.M. 9073, b. 4.
Contains many contemporary documents relating to the whale-fishery at Spitsbergen.
- LIEUWE AITZEMA. Saken van Staet en Oorlogh [1621-1669]. 6 vols. The Hague: 1669-72. Fol. B.M. 1310, l. 1-6.
- CORNELIUS GISBERT ZORGDRAGER. Bloeyende Opkomst der Aloude en Heden-daagsche Groenlandsche Visschery. Met eene hist. Beschryving der Nordere Gemesten, voornamentlyk Groenlandt, Yslandt, Spitsbergen, Nova Zembla, Jan Mayen Eilandt, de Straat Davis en al't aanmerklykste in t'Ontdekking deezer Landen. Met byvoeging van de Walvischvangst, etc. Door Abraham Moubach. *With 6 Maps and 7 Plates.* Amsterdam: 1720. 4to. B.M. 572, c. 30.
- . (2nd edition.) Met aanmerkelyke zaaken vermeerdert, nevens beschryving van de Terreneufsch Bakkeljau-Visschery. *With 6 Maps and 11 Plates.* The Hague: 1727. 4to.
- . (3rd edition.) Amsterdam: 1728. 4to.
- . (German translation.) Alte und neue Grönländische Fischerie und Wall-fischfang . . . Beschreibung von Grönland, Island, Spitzbergen, Nova Zembla, Jan Mayen Eiland, der Strasse Davis u. a. ausgefertiget durch Abraham Moubach. *With Maps and Plates.* Leipzig: 1723. 4to.
- . (2nd edition.) Beschreibung des Grönländischen Wallfischfangs und Fischerey, nebst einer gründlichen Nachricht von dem Bakkeljau und Stock-fischfang bey Terreneuf, etc. *With Maps and Plates.* Nürnberg: 1750. 4to.
- . (3rd edition.) Nürnberg und München: 1752. 4to.
- . (English translation.) View of the Greenland Trade and Whale-fishery. London: 1725. This is probably the following book.
- HENRY ELKING. A view of the Greenland Trade and Whale-Fishery. (First edition, 1722.) 2nd edition. London: 1725. 4to. B.M. 1028, h. 16 (9).
- GERRET VAN SANTE. Alphabethische Naam-lyst van alle de Groenlandsche en Straat-Davissche Commandeurs, die zedert het jaar 1700 op Groenland, en

- zedert het jaar 1719 op de Straat-Davis voor Holland en andere provincien, hebben gevaaren. Haarlem: 1770. 4to. B.M. 10,460, f. 22.
- HON. DAINES BARRINGTON. The possibility of approaching the North Pole. London: 1775. 4to.
- . Third edition, with an Appendix containing papers on the same subject and on a North-West Passage by Colonel Beaufoy. London: 1828. 8vo.
- . Miscellanies. London: 1781. 4to.
- T. PENNANT. Introduction to the Arctic Zoology. 3 vols. London: 1792. 4to. Information about Spitsbergen, vol. 3, pp. cxxxii. and cxlvii.
- S. B. J. NOËL DE LA MORINIÈRE. Mémoire sur l'antiquité de la Pêche de la Baleine, par les Nations européennes. Rouen: [1795?]. 8vo. B.M. b. 335. Contains information about the Basque whalers.
- C. BERNARD DE RESTE. Histoire des Pêches, des découvertes et des établissemens des Hollandois dans les mers du nord. 3 vols. 2nd edition. Paris: an ix. (1801). 8vo. B.M. 150, d. 13. Chap. xxxv., Du Spitsberg, *with map*. It contains nothing original.
- J. LE MOINE DE L'ESPINE and ISAAC DE LONG. De Koophandel van Amsterdam en andre Nederlandsche Steden. 4 vols. 10th edition. Amsterdam: 1801-2. 8vo. B.M. 8245, dd. 24. Vol. ii. 283-309. Account of the Dutch whale-fishery.
- W. SCORESBY. An Account of the Arctic Regions. 2 vols. Edinburgh. 1820. 8vo.
- R. G. BENNET and J. VAN WIJK. Verhandeling over de Nederlandsche Ontdekkingen in Amerika, Australië, de Indien, en de Poollanden, etc., *with map of Spitsbergen*. Utrecht: 1827. 8vo. Bound and issued in *Nieuwe Verhandelingen van het Provinciaal Utrechtsch Genootschap van Kunsten en Wetenschappen*. Vol. vi. Utrecht: 1830. 8vo. B.M. Ac. 970.
- A. CHARITONOW. Die russischen Promyschleniks auf Grumant (Spitsbergen); ihre Sagen und Ueberlieferungen. Erman's *Archiv für wissenschaftliche Kunde von Russland*. Berlin: 1851. Pp. 154-175.
- CAPTAIN JANSEN of the Dutch Navy. Notes on the Ice between Greenland and Nova Zembla; being the Results of Investigations into the Records of Early Dutch Voyages in the Spitzbergen Seas. *Proceedings of the Royal Geographical Society*, vol. ix. (London), 1864-65, pp. 163-181. A good short account of the Dutch whale-fishery.
- A. PETERMANN. Spitzbergen und die arktische Central-Region. *Petermanns Geographische Mittheilungen*, Ergänzungsheft, No. 16. Gotha: 1865. 4to.
- N. DUNER and A. E. NORDENSKIÖLD. Anteckningar till Spetsbergens Geografi. Med en Karta. *K. Svenska Vetens. Akad. Handlingar*, vi. No. 5. Stockholm: 1865. 4to.
- . (English translation.) Explanatory remarks in illustration of a map of Spitzbergen. Stockholm: 1865. 8vo.
- A. E. NORDENSKIÖLD. Utkast till Spetsbergens Geologi. *K. Svenska Vetens. Akad. Handlingar*, vi. No. 7. Stockholm. 1866. 4to.

- N. DUNEE and A. E. NORDENSKIÖLD. Förberedande Undersökningar rörande utförbarheten af en Gradmätning på Spitsbergen. *K. Svenska Vetens. Akad. Handlingar*, vi. No. 8. Stockholm: 1866. 4to.
- A. CH. GRAD. Esquisse physique des îles Spitzbergen et du Pôle Arctique. Paris: 1866. 8vo. B.M. 10,460, d. 17.
A compilation based on the published results of the Swedish expeditions.
- JOHN LOTHROP MOTLEY. History of the United Netherlands from the Death of William the Silent to the Twelve Years' Truce—1609. 4 vols. New York: 1868. 8vo.
Chap. xxxvi. and the authorities quoted deal with the rise of Dutch enterprise in the northern seas.
- M. LINDEMANN. Die arktische Fischerei der Deutschen Seestädte. *Petermanns Geog. Mitt.*, Erg. Heft, No. 26. Gotha, 1869. 4to.
- SAMUEL MULLER. Mare Clausum. Bijdrage tot de Geschiedenis der Rivaliteit van Engeland en Nederland in de zeventiende Eeuw. Amsterdam: 1872. 8vo. B.M. 6006, i. 17 (1).
- CLEMENTS R. MARKHAM. The Threshold of the Unknown Region. London: 1873. 8vo. 4th edition. London: 1876. 8vo.
Contains a sketch of Spitsbergen history.
- SAMUEL MULLER. Geschiedenis der Noordsche Compagnie: Utrecht. 1874. 8vo.
- S. R. VAN CAMPEN. The Dutch in the Arctic Seas. London: 1876. 8vo.
The first volume only was published.
- (W. HUNT?). The Trade and Commerce of Hull. Hull: 1878. 8vo. B.M. 8228, b. 40.
- F. DE BAS. Het doopregister van Spitsbergen volgens Reisjournalen en Kaarten. *Tijd. Aardrijksk. Genoots.* Amsterdam: 1879. Pp. 1-30.
- FRIEDRICH VON HELLWALD. Im ewigen Eis. Geschichte der Nordpol-Fährten von den ältesten Zeiten bis auf die Gegenwart. Stuttgart: 1881. 8vo. B.M. 10,460, ee. 33.
- CLEMENTS R. MARKHAM. On the Whale Fishery of the Basque Provinces of Spain. *Proc. Zoological Soc. (London)*, December 13, 1881.
- A. E. NORDENSKIÖLD. Remarks made at a meeting of the Swedish Geographical Society, March 21, 1884, with reference to the objections made by Russia and Holland to the proposal of Sweden to annex Spitsbergen. *Ymer*, vol. iv. App. xvi.
- F. E. BEDDARD. A Book of Whales. (Progressive Science Series.) London: 1900. 8vo.
- SIR MARTIN CONWAY. Some unpublished Spitsbergen MSS. *Geographical Journal* (London), June, 1900.

PUBLICATIONS RELATING TO EVENTS IN SPITSBERGEN,
ARRANGED IN THE ORDER OF THEIR OCCURRENCE.

N.B.—The dates preceding each entry refer, not to the date of publication, but to the events which the publication records.

1596. WILLEM BARENTS. Extract from his log from May 18 to July 1, 1596, describing the discovery of Spitsbergen.
Printed in Hessel Gerrits' '*Histoire du pays Spitsberghe*,' pp. 4-9; and reprinted in Muller's '*Noordsche Compagnie*,' pp. 364-366.
1596. GERBRIT DE VEER. Waerachtighe Beschrijvinghe van drie seylagien. ter werelt noyt soo vreemt gheboort, drie jaeren achter malcanderen deur de Hollandtsche ende Zeelandtsche schepen by noorden, Noorweghen, Moscovia, ende Tartaria, na de coninckrijcken van Cathay ende China. so mede vande opdoeninghe vande Weygats, Nova Sembla, eē van't landt op de 80. gradē. dat men acht Groenlandt te zijn. etc. Amsterdam: 1598. Oblong 4to. B.M. 566, f. 13 (2): 486, b. 18 (3).
1596. ———. Latin translation by C. C. A. (Carolus Clusius Atrebatensis). *Diarium nauticum seu vera descriptio trium navigationum admirandarum . . . tum ut detecta fuerint Weygatz fretum, Nova Zembla, et Regio sub 80 gradu sita quam Groenlandiam esse censent, quam nullas unquam adiit.* Amsterdam: 1598. 4to. *Vide* Camus, '*Memoire*,' pp. 197, 205; Tiele, '*Mémoire*,' p. 103.
1596. ———. Translated by William Phillip. *The True and perfect Description of three Voyages, so strange and woonderfull. . . Done and performed three yeares, one after the other, by the Ships of Holland and Zeland . . . shewing the discoverie of the Straights of Weigates, Nova Zembla, and the Countrie lying vnder 80. degrees: etc.* London: 1609.
Reprinted by the Hakluyt Society. Edited by C. T. Beke. London: 1853. 8vo. Another edition edited by Lieut. Koolemaus Beynen. London: 1876, 8vo. There were numerous earlier reprints and translations published, e.g. in the collections of Ramusio, De Bry, Saeghman, Purchas, Commelijn, Reneville, Forster, Perthes, Laharpe, and others.
1596. JAN CORNELISZ. RIJF. Affidavit by J. C. R. relating to the discovery of Spitsbergen, etc. Printed on pp. 23-26 of J. K. J. de Jonge's '*De Opkomst van het Nederlandsch gezag in Oost-Indie, 1595-1610. Versameling van onuitgegeven stukken uit het Oud-Koloniaal Archief.*' The Hague and Amsterdam: 1862, etc. 8vo.
1596. Affidavits made by Arent Martenssen of Antwerp and Anthoine Classen Herman, ship's captain, of Leyden, describing the discovery of Spitsbergen by Barents' expedition, in which they took part, in 1596.
Printed in Muller's '*Noordsche Compagnie*,' pp. 362, 363.

1596. JOANNES PONTANUS, Professor at Harderwijk. *Rerum et urbis Amstelodamensium Historia*. Amst. sub cane vigilanti excudit Judocus Hondius. Amsterdam: 1611. Fol. B.M. 794, i. 6. Dutch translation. Amsterdam: 1614. B.M. 795, i. 7 (1).
Vide Tiele, 'Mémoire,' p. 195.
1596. J. K. J. DE JONGE. *Nova Zembla: De Voorwerpen door de nederlandsche Zeevaarders na hunne Overwintering aldaar in 1597 achtergelaten en in 1871 door Kapitein Carlsen teruggevonden*. The Hague: 1872. 8vo.
1596. ———. *Nova Zembla: De voorwerpen door de nederlandsche Zeevaarders na hunne Overwintering op Nowaja-Semlja bij hun Vertrek in 1597 achtergelaten en in 1876 door Ch^r Gardiner, Esq^r., aldaar teruggevonden*. The Hague: 1877. 8vo.
1596. SIR MARTIN CONWAY. *How Spitsbergen was discovered*. *Geographical Journal* (London), February, 1903. Reprinted in this volume.
1603. WILLIAM GORDEN. *A Voyage performed to the Northwards, Anno 1603, in a ship of the burthen of fiftie tunnes, called the Grace, and set forth at the cost and charges of the Worshipfull Francis Cherie*. Written by William Gorden; being the first Voyage to Cherie Island; etc. Printed in Purchas' *'Pilgrims,'* lib. iii. chap. xiii. p. 566.
- 1603, 1607, 1610-22. THOMAS EDGE. *A briefe Discouerie of the Northerne Discoveries of Seas, Coasts, and Countries, deliuered in order as they were hopefully begunne, and haue euer since happily beene continued by the singular industrie and charge of the Worshipfull Society of Muscouia Merchants of London, with the ten seuerall Voyages of Captaine Thomas Edge the Authour*.
 Printed in Purchas' *'Pilgrims,'* vol. iii. pp. 462-473.
- 1604-9. JONAS POOLE. *Diuers Voyages to Cherie Iland, in the yeeres 1604, 1605, 1606, 1608, 1609*. Written by Ionas Poole.
 Printed in Purchas' *'Pilgrims,'* lib. iii. chap. xiii. pp. 556-566.
1607. HENRY HUDSON. *Divers Voyages and Northerne Discoveries of that worthy irrecoverable Discoverer, Master Henry Hudson*. His Discoverie toward the North Pole, set forth at the charge of certaine Worshipfull Merchants of London, in May 1607. Written partly by John Playse, one of the Company, and partly by H. Hudson.
 In Purchas' *'Pilgrims,'* vol. iii. pp. 567-610. Reprinted in G. M. Asher's *'Henry Hudson the Navigator'* (Hakluyt Society). London: 8vo. 1860.
1607. H. C. MURPHY. *Henry Hudson in Holland*. The Hague: 1859. 8vo.
1607. SIR MARTIN CONWAY. *Hudson's Voyage to Spitsbergen in 1607*. *Geographical Journal* (London), 1900, pp. 121-130. Reprinted in this book.
1610. JONAS POOLE. *A Voyage set forth by the Right Worshipfull Sir Thomas Smith, and the rest of the Muscouie Company, to Cherry Iland: and for a further discouerie to be made towards the North-Pole, for the likelihood of a Trade or a passage that way, in the Ship called the Amitie, of burthen seuentie tuns; in the which I Ionas Poole was Master, hauing fourteene men and one boy: A.D. 1610*.
 Printed in Purchas' *'Pilgrims,'* vol. iii. p. 699.

1611. JONAS POOLE. A briefe Declaration of this my Voyage of discovery to Greenland, and towards the West of it, as followeth: being set forth by the right Worshipfull Sir Thomas Smith, Gouvernour of the right Worshipfull Company of new Trades, etc. Written by Ionas Poole.

Printed in Purchas' 'Pilgrims,' vol. iii. p. 711. The Commissions of Poole and Edge for 1611 (Poole's misprinted 1610) are in Purchas' 'Pilgrims,' vol. iii. pp. 707, 709.

- 1611-24. Corte Deductie ende Remonstrantie van wegen de Bewinthebbers ende Participanten vande respectieue oude Noortse Compagnien ouer Delft, Hoorn, Enckhuijsen, Vlissingen, ende Vere, ouergegeuen aende Hooge Mogende Heeren de Staten Generael der Vereenichde Nederlandtse Provintien.

Printed in Muller's 'Noordsche Compagnie,' pp. 393-402.

1612. JONAS POOLE. A Relation written by Ionas Poole of a Voyage to Greenland, in the yeere 1612, with two ships, the one called the Whale; the other the Sea-horse, set out by the Right Worshipfull the Muscouie Merchants.

Printed in Purchas' 'Pilgrims,' vol. iii. p. 713.

1612. Statement of Sir Thomas Smith, Gouner of y^e Muscovie Companie. September 18, 1612.

British Museum, MS. Lansd. 142, f. 391.

- 1612-22. THOMAS EDGE. Dutch, Spanish, Danish disturbance, also by Hull men, and by a new Patent, with the succeeding Successe and further Discoueries till this present.

Purchas' 'Pilgrims,' vol. iii. pp. 466-470.

- 1612-13. HESSEL GERRITZ. VAN ASSUM. Beschryvinghe vander Samoyeden Landt in Tartarien Nieulijcks onder 't ghebiedt der Moscoviten gebracht. Wt de Russche tale overgheset, Anno 1609. Met een verhael Vande opsoeckingh ende ontdeckinge vande nieuwe deurgang ofte straet int Noord-westen na de Rijken van China ende Cathay. Ende Een Memoriael gepresenteert aenden Connigh van Spaengien belanghende de ontdeckinghe ende gheleghentheyte van 't Land ghenamt Australia Incognita. Amsterdam: 1612. 4to.

- 1612-13. ———. Descriptio ac delineatio Geographica Detectionis Freti Sive, Transitus ad Occasum suprâ terras Americanas, in Chinam atq; Iaponem ducturi. Recens investigati ab M. Henrico Hudsono Anglo. Item, Exegesis Regi Hispaniæ facta, super tractu recens detecto, in quinta Orbisparte, cui nomen Australis Incognita. Cum descriptione Terrarum Samoiedarum, et Tingoësiorum, in Tartariâ ad Ortum Freti VVaygats sitarum, nuperq; sceptro Moscovitarum adscitarum. Amsterdam: 1613. 4to. B.M. 1045, e. 15 (1).

There were many editions, both in Dutch and Latin, much differing from one another. Two Latin editions of 1613 contain passages relating to Spitsbergen. *Vide* Camus, 'Mémoire,' p. 254; and Tiele, 'Mémoire,' pp. 179, 188. 'Detectio Freti' of 1613 contains, 8thly, "De detectione terræ polaris sub latitudine octoginta graduum." A later edition of the same year contains the same tract, and also a treatise by Peter Plancius, intitled "Refutatio rationum quibus Angli Dominationem piscationis ad insulam Spitzbergensem . . . pretendere . . . conantur." It contains likewise important maps of Spitsbergen and Novaja Zemlja.

A modern reproduction is the following: *Detectio Freti Hudsoni*. H. Gerritz's collection of tracts by himself, Massa, and De Quir on the N.E. and W. Passage, Siberia and Australia. Reproduced with the maps, in photolith., in Dutch and Latin after the edition of 1612-13. With English translation by F. J. Millard and essay on the origin and design of this collection by S. Muller. Utrecht: 1878. 4to. B.M. 10,460, bb. 7.

1613. HESSEL GERRITZ. VAN ASSUM. *Histoire du pays nomme Spitsberghe monstrant comment qu'il est trouvée, son naturel et ses animaux, avecques. La triste racompte des maux, que nos Pecheurs, tant Basques que Flamens, ont eu a souffrir des Anglois, en l'esté passé. l'An de grace 1613. Escrit par H. G. A.* Amsterdam: 1613. 4to. B.R.H. Pamflet, 2053. B.M. 572, d. 2.

Reprinted in part xi. of De Bry's '*India Orientalis*.' *Vide* Camus, '*Mémoire*,' p. 254, Tiele, '*Mémoire*,' p. 195. A facsimile edition was published by Muller (Amsterdam: 1872. 4to). Extracts of the original are published in Muller's '*Noordsche Compagnie*,' pp. 364, 369. An English translation is included in Sir Martin Conway's '*Spitsbergen*.' London (Hakluyt Society), 1902. 8vo.

1613. A Breife Narration of the discoverie of the Northerne Seas, and the Coasts and Contries of those parts as it was first begunn and continewed by the singuler Industrie and charge of the Company of Muscouie Merchants of London. An answer to the complaint of the Lowe Countries touching the niwe fishing of the whales vppon the coast of Greneland by the English Merchants of the Muscovy company. 13 Jan. 1613.

British Museum, MS. 14,927, f. 171. A modern copy of this document is in the British Museum, MS. 33,837, f. 70.

1613. WILLIAM BAFFIN. *A Journall of the Voyage made to Greenland with sixe English ships and a Pinnasse, in the yeere 1613.* Written by Master William Baffin.

Printed in Purchas' '*Pilgrims*,' vol. iii. pp. 716-720. Reprinted in C. R. Markham's '*The Voyages of Wm. Baffin*' (Hakluyt Society). London: 1881. 8vo.

1613. ROBERT FOTHERBYE (?). *A Short Discourse of a Voyage made in the Yeare of Our Lord 1613 to the Late Discovered Countrey of Greenland; and a Breife Discription of the same Countrie, and the Comodities ther raised to the Aduenturers.*

MS. in the library of the American Antiquarian Society, at Worcester, Mass. Published, with Introduction and Notes by Samuel F. Haven, in the American Antiquarian Society's *Transactions*, vol. iv. (1860), p. 285; also privately printed, Boston: 1860. 8vo. Reprinted in C. R. Markham's '*The Voyages of Wm. Baffin*' (Hakluyt Society), p. 54. London: 1881. 8vo.

1613. Statement by the States General in their meeting of 16th April, 1615, of their claim to the right to fish on the coasts of Spitsbergen.

Printed in S. Muller, '*Mare Clausum*,' Bijlage E. p. 363.

1614. Instructions from the States-General to the "Commandeur" of the Dutch whaling-fleet for the voyage of 1614. Printed in Muller's '*Noordsche Compagnie*,' p. 370.

1614. SIR MARTIN CONWAY. Joris Carolus, discoverer of Edge Island. *Geographical Journal* (London), vol. xvii. (1901) pp. 623-632; and vol. xviii. (1901) p. 544. Reprinted in the present volume.
1614. ROBERT FOTHERBYE. A Voyage of Discouerie to Greenland, etc., Anno 1614. Written by Ro. Fotherbye. Printed in Purchas' 'Pilgrims,' vol. iii. pp. 720-728.
Reprinted in C. R. Markham's 'The Voyages of Wm. Baffin' (Hakluyt Society), pp. 80-102. London: 1881. 8vo.
1615. ———. A true report of a Voyage Anno 1615, for Discouerie of Seas, Lands, and Ilands, to the Northwards; as it was performed by Robert Fotherbie, in a Pinnasse of twentie tunnes called the Richard of London: set forth at the charge of the Right Worshipfull Sir Thomas Smith, Knight, my very good Master, and Master Richard Wiche, Gouvernours: and the rest of the Worshipfull Company of Merchants, called the Merchants of New Trades and Discoveries, trading into Moscouia, and King James his New Land.
Printed in Purchas' 'Pilgrims,' vol. iii. pp. 728-731; and followed (p. 731) by a letter from Fotherby to Edge, dated July 15, 1615, written in Crosse Road.
- 1615-27. Extracts from the Resolutions of the States General relating to Dutch whalers in the Spitsbergen waters in the years 1615-1627. Printed in Muller's 'Noordsche Compagnie,' pp. 380-386.
1616. Instructions from the States General for the Dutch Whaling Fleet in 1616. Muller, 'Noordsche Compagnie,' pp. 372-377.
1617. Humble Petition, etc., of the English Merchants for discovery of newe trades. 22 Jan. 1617. British Museum, MS. Lands. 142, f. 389.
1617. WILLIAM HELEY. A letter dated 12th of August, 1617. Printed in Purchas' 'Pilgrims,' vol. iii. p. 732.
1617. Affidavits by Dutch sailors, who were present in Spitsbergen in 1617, relative to the trouble with the English that year. Printed in Muller's 'Noordsche Compagnie,' pp. 402-406.
1618. Letters from Robert Salmon, Th. Sherwin, and James Beversham, communicated by W. Heley and printed in Purchas' 'Pilgrims,' vol. iii. p. 733.
1618. Papers connected with the Dutch Embassy of 1618-19 to James I. respecting the troubles in Spitsbergen in the summer of 1618. Printed in S. Muller's 'Mare Clausum,' Bijlagen G. and H., pp. 369-376.
1618. Affidavits connected with the troubles at Spitsbergen, reprinted from English State Papers in Sir Martin Conway's 'Spitsbergen.' London (Hakluyt Society), 1902. 8vo.
1619. Letters from John Chambers and Robert Salmon to W. Heley. Printed in Purchas' 'Pilgrims,' vol. iii. p. 734.
- 1619-60. SIR MARTIN CONWAY. The Rise and Fall of Smeerenburg, Spitsbergen. Privately printed; s.l. et d. Reprinted in this volume.
1620. Letters from John Catcher and Robert Salmon to W. Heley. Printed in Purchas' 'Pilgrims,' vol. iii. pp. 734, 735.
1621. A Letter from Robert Salmon to W. Heley. Printed in Purchas' 'Pilgrims,' vol. iii. p. 735.

1623. Letters from Nathaniel Fanne, Master Catcher, and William Goodlard to W. Heley. Printed in Purchas' 'Pilgrims,' vol. iii. p. 736.
- 1630-31. EDWARD PELLHAM. God's Power and Providence: shewed in the Miraculous Preservation and Deliverance of eight Englishmen, left by mischance in Green-land, Anno 1630, nine moneths and twelve dayes. . . . With a Description of the chiefe Places and Rarities of that barren and cold Countrey, . . . as also with a map of Green-land. London: 1631. 4to. B.M. 982, a. 24.
- Reprinted in Churchill's Collection, vol. iv. p. 808; and in A. White's 'Spitzbergen' (Hakluyt Society). London: 1855. French translation in Perthes' Collection.
- 1632-3. JEAN VROLICQ. Documents connected with Jean Vrolicq's voyages to Spitsbergen and his disputes with the Dutch whalers. Printed in Muller's 'Noordsche Compagnie,' pp. 406-423.
- 1632-34. DR. E. T. HAMY. Les Français au Spitzberg au XVII. siècle. Bulletin de géographie historique et descriptive. Paris: 1895. 8vo.
- 1633-4. JACOB SEGERSZ. VAN DER BRUGGE. Journael, Of Dagh-Register, gehouden by Seven Matroosen, In haer Overwinteren op Spitsbergen in Maurits-Bay, Gelegen in Groenlandt, t'zedert het vertreck van de Visschery-Schepen de Geoctroyeerde Noordtsche Compagnie, in Nederlandt, zijnde den 30. Augusty, 1633, tot de wederkomst der voorsz. Schepen, den 27. May, Anno 1634. Beschreven door den Bevelhebber Jacob Segersz. van der Brugge. Amsterdam (Saeghman), s.d. (1634). 4to. With woodcut illustrations. B.M. 10,460, bbb. 10.
- Vide* Tiele, 'Mémoire,' p. 277. An abstract will be found in Zorgdrager (p. 257, German edition). An edition not known to Tiele has the following erroneous title: 'Twee Journalen, yeder gehouden by Seven,' etc. B.M. 10,460, bbb. 13. Three editions known to Tiele are all in the British Museum. This tract is included in Saeghman's Collection. *Vide* Tiele, 'Ned. Bibl.' p. 128. B.M. 10,057, dd. 50.
- An English translation is included in Sir Martin Conway's 'Spitsbergen.' London (Hakluyt Society), 1902. 8vo.
1634. Documents concerning English troubles in Spitsbergen in 1634 are reprinted from English State Papers in Sir Martin Conway's 'Spitsbergen.' London (Hakluyt Society), 1902. 8vo.
- 1634-5. [ANDREW JOHNSON ?]. Twee Journalen, Het Eerste gehouden by de Seven Matroosen, op het Eylandt Mauritius, in Groenlandt, In den Jare 1633, en 1634, in haer Overwinteren, doch sijn al t'samen gestorven: En het tweede gehouden by de Seven Matroosen, die op Spitsbergen Zijn Overwintert, en aldaer ghestorven, in den Jare 1634. Amsterdam (Saeghman), s.d. (1635). 4to.
- Frequently reprinted. English translation published in Churchill's Collection, vol. ii. p. 427; and in Pinkerton's Collection, vol. i. p. 535, and reprinted in Sir Martin Conway's 'Spitsbergen.' London (Hakluyt Society), 1902. 8vo. *Vide* Tiele, 'Mémoire,' p. 276.
1639. DIRCK ALBERTSZ. RAVEN. Iovrnael ofte Beschrijvinghe vande reyse ghedaen by den Commandeur Dirck Albertsz. Raven, nae Spitsbergen, in den Jare 1639 ten dienste vande E. Herren Bewindt-hebbers van de Groenlandtsche

Compagnie tot Hoorn . . . door hem selver beschreven. Hoorn (J. Jz Deutel): 1646. 4to.

Vide Tiele, 'Mémoire,' p. 213; Ned. Bibl., p. 40.

Before 1646. ISAAC DE LA PEYRÈRE. Relation dv Groenland. Paris (Chez Avgvstin Covrbe): 1647. 12mo.

Frequently reprinted and incorporated in other books. *Vide* C. C. A. Gosch, 'Danish Arctic Expeditions' (Hakluyt Society), vol. ii. p. lix. London: 1897. 8vo. The English translation was printed in White's 'Spitzbergen and Greenland' (Hakluyt Society): London, 1855: 8vo, and in Churchill's Collection.

1652. RICHARD NICOLSON. "Wie aus der Beschreibung Richard Nicolson, eines Engländers erhellet, welcher im Jahre 1652 seine Beschreibung von Spitzbergen und Nova Zembla an das Licht gab." Zorgdrager (German edition), p. 187. Original Dutch edition, p. 158.

I can find no trace or other mention of this book.

1655. HENDRICH DONCKER'S Atlas (Amsterdam, 1655), p. 79, gives local sailing directions about Spitsbergen, and incidentally names many harbours and anchorages. These directions are practically reprinted in Van Loon and Vooght's Atlas published by J. Van Keulen (Amsterdam: 1687), pp. 78-81.

c. 1660. CAPTAIN LANCELOTT ANDERSON. An Account of Greenland.

A manuscript in the British Museum, Sloane 3986, ff. 78, 79. Printed in the *Geographical Journal*, June, 1900, p. 629.

c. 1660. GRAY. The manner of the Whale-fishing in Groenland. Given by Mr. Gray to Mr. Oldenburg for the Society.

MS. in the Register Book of the Royal Society, November 4, 1663. Printed and illustrations reproduced in the *Geographical Journal* for June, 1900, p. 632.

c. 1660. ———. Enquiries propounded to and answered by Mr. Gray; that hath been severall times in Groenland.

MS. in the Register Book of the Royal Society, February 25, 1662, vol. ii. (1662, 1663), p. 156. Partly printed in the *Geographical Journal* for June, 1900, p. 631.

1671. FRIEDRICH MARTENS. Spitzbergische oder Groenlandische Reise Beschreibung, gethan im Jahr 1671, etc. Hamburg: 1675. 4to. B.M. 462, c. 25.

English translations, London, 1694, 1695, and in A. White's 'Spitzbergen' (Hakluyt Society). London: 1855. 8vo. Italian translation, Venice, 1680. Dutch translations, Amsterdam, 1685, 1710, 1770, etc.

Martens' account formed the basis of most descriptions of Spitsbergen for 150 years, and was reprinted in several collections of voyages.

1671. HERMAN MOLL. Atlas Geographicus or a compleat system of Geography. 5 vols. London: 1711-17. 4to.

Vol. i. p. 125 *et seq.* contains a description of Spitsbergen, chiefly borrowed from Martens.

1676. Chart of the ice-pack between Spitsbergen and Novaya Zemlya, reproduced in *Royal Geographical Society's Proceedings*, ix. p. 175 (London: 1864-65). The authority is not stated, but appears to be some old Dutch record.

1682. P. P. v. S. Kort en oprecht verhaal van het Droeveig en avontuurlijk weder-varen van Abraham Jansz. van Oelen, etc. No place (Leiden?): 1683. 4to.

The author's initials are at p. 51, and the date is given on the illustrated frontispiece, "Gedrukt voor den Auteur, 1683." A copy belongs to Mr. G. J. Honig of Zaandijk.

The enlarged 2nd edition is entitled 'De seldsaame en noit gehoorde Wal-vis-vangst, Voorgevallen by St. Anna-Land in 't jaar 1682, den 7. October. Midsgaders Een Pertinente Beschrijvinge van de geheele Groen-Landse-Vaart. Verhandeld in Prose, en Versen. Nevens Verscheide Saaken tot die Materie dienende; Gelijk op d' and're-sijde van dit Blad Kan gesien worden. Door P: P: v: S. Med schoone Kop're Prentverbeeldingen verciert. Dese 2de. Druk, merkelyk verbeterd, en, bijna de helft, vermeerderd. Tot Leiden, in 't yaer 1684.' Leiden: 1684. 4to.

1693. DR. E. T. HAMY. Une Croisière française à la Côte Nord du Spitzberg en 1693. With reproduction of contemporary map.

Bull. de Géogr. Hist. et Descriptive, 1901, No. 1, p. 32. The account is pieced together from contemporary documents.

1707. CLEMENTS R. MARKHAM. On Discoveries east of Spitzbergen, with reference to the voyage of Giles. *Proceedings of the Royal Geographical Society*, February, 1870, vol. xvii. p. 97.

- 1721-2. JOHANN MICHAEL KÜHN. Lebens und Reise-Beschreibung . . . Dessen Schiffahrten nach . . . Spitzbergen, etc. Gotha: 1741. 8vo. B.M. 791, a. 30.

- 1743-49. PIERRE LOUIS LE ROY. Erzählung der Begebenheiten vier Russischer Matrosen, die durch einen Sturm zur Insel Ost Spitzbergen verschlagen worden. Riga und Mienau: 1760. 8vo. B.M., B. 681 (4). 2nd edition, 1768. 8vo.

A French translation is included in the Perthes Collection; also independently published, Amsterdam and Paris, 1767: 8vo. Dutch translation, Amsterdam, 1768: 8vo.

English Translation. A Narrative of the singular adventures of Four Russian Sailors, who were cast away on the desert Island of East Spitzbergen. Together with Some Observations on the Productions of that Island, etc. Translated from the German Original, at the desire of several Members of the Royal Society. This is printed in the following volume: J. von Staehlin Storcksburg, 'An Account of the new Northern Archipelago lately discovered by the Russians in the seas of Kamtschatka and Anadir.' Translated from the German Original. London: 1774. 4to. B.M. 10,460, 66, 18. It was reprinted in Pinkerton's Collection, and in the English translation of Perthes. Large extracts of it were included in 'Sandford and Merton.'

1758. ANTON ROLANDSSON MARTIN. Dagbok hallen vid en resa till Nordpolen eller Spitsbergen, på Kongl. Vetenskaps-Akademiens omkostnad och med ett Grönlandska Compagniet i Gröteborg tillhörande skepp år 1758 förrättad af Anton Rolandsson Martin. *Ymer*, i. p. 102. Stockholm: 1881. 8vo.

Part of this journal is translated in Passarge's 'Nordenskiöld,' p. 339.

- 1765-6. GERHARD FRIEDRICH MÜLLER. Herrn von Tschitschagow, Russisch-Kayserlichen Admirals, Reise nach dem Eissmeer. Nachrichten von dem neuesten Schiffahrten im Eissmeer und in der Kamtschatkischen See seit dem Jahr 1742, da die zweyte Kamtschatkische Expedition aufgehört hat. St. Petersburg: 1793. 8vo.

1773. CAPTAIN THE HON. C. J. PHIPPS (afterwards Lord Mulgrave). *A Voyage towards the North Pole, undertaken by His Majesty's Command.* London: 1774. 4to.
Reprinted in the Pinkerton, Laharpe, and Barrow Collections more or less fully. The MS. Journal is in the British Museum (Kings 224). The MS. Log is also in the British Museum (No. 8963).
1773. CAPTAIN A. H. MARKHAM. *Northward Ho! Including a Narrative of Captain Phipp's Expedition, by a Midshipman (T. Floyd).* London: 1879. 8vo.
1780. S. BACSTROM. *Account of a voyage to Spitzbergen in the year 1780.*
Printed in Pinkerton's Collection, vol. i.
1801. FRIEDRICH GOTTLÖB KÖHLER. *Reise ins Eismeer und nach den Küsten von Grönland und Spitzbergen im Jahre 1801 nebst einer genauen Beschreibung des Walfischfanges von Friedrich Gottlob Köhler, Seilermeister in Pirna.* Leipzig: 1820. 8vo. B.M. 10,280, a. 13.
This is a description of a normal voyage of the period, made by a Hamburg whaler. It contains nothing of interest about Spitsbergen.
1806. JOHN LAING. *A Voyage to Spitzbergen.* London: 1815. 8vo. B.M. 980, f. 2. Other editions. Edinburgh: 1818 and 1820. 12mo.
Laing was surgeon in Scoresby's ship in 1806.
1818. LIEUT. F. W. BEECHEY. *Description of a view of the North Coast of Spitzbergen now exhibiting in the large Rotunda of H. A. Barker's Panorama, painted from drawings taken by Lieut. Beechey.* London: 1819. 8vo. B.M. 10,025, d. 9.
1818. CAPTAIN F. W. BEECHEY. *A Voyage of Discovery towards the North Pole, performed in His Majesty's ships "Dorothea" and "Trent," under the command of Captain David Buchan, R.N., 1818.* London: 1843. 8vo.
Containing, as Appendix, a letter from Captain Sabine to Davies Gilbert, M.P., dated February 8, 1826. See also Barrow's Voyages.
1818. THOMAS A. LATTA, M.D. *Observations on Ice-bergs, made during a short Excursion in Spitzbergen.* *Edinburgh Philosophical Journal* (Edinburgh, 1820), pp. 237-243.
Dr. Latta was surgeon on Scoresby's ship in the year 1818. He gives an account of a visit to, and traverse across, one of the "Seven Icebergs."
1821. M. W. MANDT. *Observationes . . . in itinere Groenlandico factæ s.l.* 1822. 8vo. B.M. 7385, a. (1).
- 1821-2. [R. P. GILLIES]. *Tales of a voyager to the Arctic Ocean. First and Second Series.* London: 1826 and 1829. 12mo. B.M. N. 382 and N. 660 (1).
1822. W. SCORESBY. *Journal of a Voyage to the Northern Whale Fishery, including researches and discoveries on the Eastern Coast of Greenland in 1822.* Edinburgh: 1823. 8vo.
1823. D. C. CLAVERING. *Journal of a Voyage to Spitzbergen and the East Coast of Greenland in H.M.S. "Griper."* Edited by J. Smith. London: 1830. 8vo.
1823. SIR EDWARD SABINE. *An Account of experiments to determine the figure of the earth by means of the pendulum vibrating seconds in different latitudes.* London: 1825. 4to.
The Visit to Spitsbergen is described, pp. 148, 149.

1825. SIR EDWARD SABINE. On the measurement of an Arc of the Meridian at Spitzbergen. *The Quarterly Journal of Science and Arts* (Royal Institution), vol. xxi. (London: 1826), pp. 101-108. 8vo.
1827. ADMIRAL SIR WILLIAM EDWARD PARRY. Narrative of an Attempt to reach the North Pole, in Boats fitted for the purpose, and attached to H.M. Ship "Hecla" in 1827. London: 1828. 4to.
- See also Barrow's *Voyages* and numerous later compilations on arctic travel and exploration for accounts of the same voyage.
1827. PROF. B. M. KEILHAU. Reise i Ost og West Finmarken samt til Beeren-Eiland og Spitsbergen i Aarene 1827 og 1828. *With Maps and Plates*. Christiania: 1831. 8vo. B.M. 1427 b.
1827. DEZOS DE LA ROQUETTE. Notice biographique sur la Vie et les Travaux de Prof. Keilhau. Paris: 1838. 8vo.
1827. BARTO VON LÖWENIGH. Reise nach Spitzbergen. Aachen and Leipzig: 1830 8vo.

The substance of this book was reprinted in *Petermanns Mittheilungen*, Erg. Heft, No. 16. Gotha: 1865. There are references to Keilhau and Löwenigh in R. Everest, 'A Journey through Norway,' pp. 96, 99, and 134. London: 1829. 8vo.

- 1838-9. XAVIER MARMIER. Voyages de la Commission Scientifique du Nord en Scandinavie, en Laponie, au Spitzberg, et aux Feroë, pendant les années 1838, 1839 et 1840, sur la Corvette La Recherche, commandée par M. Fabvre, Lieutenant de Vaisseau; Publiés par ordre du Roi sous la direction de M. Paul Gaimard, Président de la Commission scientifique du Nord. Relation du Voyage. 2 vols. Paris: s.d. 8vo.

- 1838-9. XAVIER MARMIER. Letters sur le Nord. Paris: 1840. 8vo.

- 1838-9. C. MARTINS. Du Spitsberg au Sahara. Paris: 1865. 8vo.

And in *Le Tour du Monde*, Nos. 287, 288. Paris: 1865.

1839. LÉONIE D'AUNET. Voyage d'une femme au Spitzberg. 2nd edition. Paris: 1855. 8vo.

See notices in *Bentley's Miscellany*, 1858, p. 33, and *the Eclectic Magazine*, 1858, p. 187.

- 1841? A. ZONCADA. Lettere sulla Dannimarca e lo Spitzberg. Milan: 1841.

I have not been able to find a copy of this work.

- 1851-2. Russische Wallrossfänger und Pelzjäger auf Spitzbergen in den Jahren 1851 und 1852.

Erman's *Archiv für wissenschaftliche Kunde von Russland*. Berlin, 1854, pp. 260-265.

1855. E. EVANS and W. STURGE. Notes on the birds of W. Spitzbergen, as observed in 1855. *Ibis* (London), 1859, pp. 166-174.

1856. THE EARL OF DUFFERIN. Letters from High Latitudes, being some account of a voyage, in 1856, in the schooner yacht "Foam," to Iceland, Jan Meyen, and Spitzbergen. London: 1857. 8vo. 10th edition. London: 1895. 8vo.

- 1858-9. JAMES LAMONT. Seasons with the Sea-horses; or Sporting Adventures in the Northern Seas. London: 1861. 8vo. B.M. 10,460, d. 7.

A long illustrated article on Lamont's work is "Sporting in Spitzbergen," by A. H. Guernsey, in *Harper's Magazine*, vol. 23, p. 606.

- 1858-9, 1869-71. JAMES LAMONT. Yachting in the Arctic Seas; or Notes of Five Voyages of Sport and Discovery in the neighbourhood of Spitzbergen and Novaya Zemlya. London: 1876. 8vo.
- 1858-79. A. LESLIE. The Arctic Voyages of A. E. Nordenskiöld (1858-1879). London: 1879. 8vo.
1861. KARL CHYDENIUS. Om den Svenska expeditionen till Spetsbergen år 1861. K. Vetens. Akad. (Stockholm), 1862, pp. 89-111.
Translation in *Petermanns Geog. Mitt.* (Gotha), 1863, pp. 24-27, 47, 212, 401. Vide *Proceedings of the Royal Geographical Society*, vol. xiii. pp. 658-662.
1861. KARL CHYDENIUS. Svenska Expeditionen till Spetsbergen år 1861 under ledning af Otto Torell. Ur deltagarnes anteckningar och andra handlingar skildrad af K. Chydenius. Stockholm: 1865. 8vo.
German translation in Passarge's volume.
1861. A. E. NORDENSKIÖLD. Geografisk och Geognostisk Beskrifning öfver nordöstra delarne af Spetsbergen och Hinlopen Strait. K. Svenska Vetens. Akad. Handlingar, iv. No. 7. Stockholm: 1862. 4to.
Translated in *Petermanns Geog. Mitt.*, 1864, pp. 127-135 and 208-215.
1861. C. W. BLOMSTRAND. Geognostiska Iakttagelser under en Resa till Spetsbergen år 1861. K. Svenska Vetens. Akad. Handlingar, iv. No. 6. Stockholm: 1864. 4to.
Translation in *Petermanns Geog. Mitt.*, 1865, pp. 191-195.
1861. A. E. NORDENSKIÖLD and D. G. LINDHAGEN. Geografiska Ortsbestämningar på Spetsbergen. K. Svenska Vetens. Akad. Handlingar, iv. No. 5. Stockholm: 1863. 4to.
The results are also printed in *Petermanns Geog. Mitt.*, 1864, pp. 14, 15.
1861. DR. OTTO TORELL. Explorations in Spitzbergen, undertaken by the Swedish Expedition in 1861, with the view of ascertaining the practicability of the measurement of an Arc of the Meridian. *Proceedings of the Royal Society*, xii. pp. 658-662. London: 1862-63. 8vo.
- 1861-4-8. O. TORELL and A. E. NORDENSKIÖLD. Die schwedischen Expeditionen nach Spitzbergen und Bären-Eiland ausgeführt in den Jahren 1861, 1864, und 1868 unter Leitung von O. Torell und A. E. Nordenskiöld. Aus dem Schwedischen übersetzt von L. Passarge. Jena: 1869. 8vo.
- 1863-4. Svenska expeditionen till Spetsbergen och Jan Mayen, utförda under åren 1863 och 1864, af N. Duner, A. J. Malmgren, A. E. Nordenskiöld, och A. Quennerstedt. Stockholm: 1867. 8vo.
German translation included in Passarge's volume.
1863. DR. OTTO TORELL. Extract of a Letter to General Sabine, dated from Copenhagen, Dec. 12, 1863. *Proceedings of the Royal Society*, xiii. pp. 83, 84. London: 1863-4. 8vo.
1864. CAPTAIN C. SKOGMAN of the Swedish Navy. Completion of the preliminary survey of Spitzbergen, undertaken by the Swedish Government with the view of ascertaining the practicability of the measurement of an arc of the meridian. In a letter addressed to General Sabine . . . dated Stockholm, Nov. 21, 1864. *Proceedings of the Royal Society*, xiii. pp. 551-553. London: 1863-64. 8vo.

1864. ALFRED NEWTON. Notes on the Birds of Spitsbergen.
Ibis (London: 1865), pp. 199-219, 496-525.
1864. Boat Voyage along the Coast of Spitsbergen, in 1864. Translated from the 'Tromsø Tidende.' *Proceedings of the Royal Geographical Society*, vol. ix. pp. 308-312. London: 1864-65.
1867. W. C. BRÖGGER and N. ROLFSEN. Fridtjof Nansen, 1861-93. English translation. London: 1896. 8vo.
1868. A. E. NORDENSKIÖLD. 1868 års Svenska Polarexpeditionen under ledning af A. E. Nordenskiöld och Fr. v. Otter. *Framtiden* (Stockholm, 1869), pp. 642-657.
Translations in Passarge's volume, and in *Petermanns Geog. Mitt.*, 1868, pp. 298-304. Vide *Royal Geographical Society Proceedings*, xiii. pp. 151-165; and *R.G.S. Journal*, xxxix. pp. 357-378.
1868. TH. M. FRIES and C. NYSTRÖM. Polarexpeditionen år 1868. Reseskizzer. Stockholm: 1869. 8vo.
1868. A. E. NORDENSKIÖLD. Astronomiska ortbestämningar under Svenska Polarexpeditionen, 1868. *Öfversigt af K. Svenska Vetens. Akad. Förhandlingar* (Stockholm: 1870), pp. 569-580.
1868. K. KOLDEWEY. Die Erste Deutsche Nordpolar-Expedition im Jahre 1868. *Petermanns Geog. Mitt.*, Ergänzungsheft, No. 28. Gotha: 1871.
1870. M. TH. VON HEUGLIN. Reisen nach dem Nordpolarmeer in den Jahre 1870 und 1871. 3 vols.
Vol. i. Reise in Norwegen und Spitzbergen im Jahre 1870. Brunswick: 1872-74. 8vo. See also *Petermanns Mitt.*, 1870, pp. 422, 423, and 443-451.
1870. A. E. NORDENSKIÖLD. Redogörelse för den Sv. Polarex. år 1872-73. *Bihång K.S. Vet. Akad. Handl.*, 1875, Bd. 2, No. 10, p. 9, footnote.
Contains a brief account of Dr. Nathorst's expedition to Ice sound in 1870.
1872. CAPTAIN J. C. WELLS. The Gateway to the Polynia. A voyage to Spitzbergen. London: 1873. 8vo. B.M. 2370, e. 17.
This book contains a description of Mr. Leigh Smith's voyage in the *Samson* in 1872.
1872. ADMIRAL MAX FREIHERR DAUBLEOSKY VON STERNECK UND EHRENSTEIN. Graf Wiltschek's Nordpolarfahrt im Jahre 1872. Herausgegeben durch das Hydrographische Amt der k.k. Oesterreichischen Kriegsmarine als Beilage zu cinem Heft der "Mittheilungen aus dem Gebiete des Seewesens" für 1874. Pola (Verlag des Hydrographischen Amtes): 1874.
1872. PROF. HANNS HÖFER. Graf Wilczek's Nordpolarfahrt im Jahre 1872. *Petermanns Geog. Mitt.*, 1874, pp. 219-228.
1872. PROF. H. MOHN. König Karl-Land im Osten von Spitzbergen und seine Erreichung und Aufnahme durch Norwegische Schiffer im Sommer 1872. *Petermanns Geog. Mitt.*, 1873, pp. 121-130.
1872. PROF. H. MOHN. "Alberts" Expedition til Spetsbergen i Nov. og Dec. 1872. Christiania: 1873. 8vo.

- 1872-3. A. E. NORDENSKIÖLD. Redogörelse för den Svenska Polarexpeditionen år 1872-1873. *K. S. Vetens. Akad. Handl. Bihang*, No. 18. Stockholm: 1875.
- Translation in *Petermanns Geog. Mitt.* (Gotha: 1873), pp. 444-453.
- 1872-3. F. R. KJELLMAN. Svenska Polarexpeditionen år 1872-3. Stockholm: 1875. 8vo.
- 1872-3. AUG. WIJKANDER. Astronomiska Observationer under den Svenska Arktiska Expeditionen 1872-73. *K. Svenska Vetens. Akad. Handlingar*, vol. xiii. No. 9. Stockholm: 1876. 4to.
- 1872-3. E. PARENT. Esplorazioni di Eugenio Parent allo Spitzbergen eseguite colla 5ª Spedizione Artica Svedese (1872-73). *Cosmos*. (Torino: 1877.) Pp. 401-423.
- 1872-3. OSWALD HEER. Die schwedischen Expeditionen zu Erforschung des hohen Nordens vom Jahr 1870 und 1872 auf 1873. Zürich: 1874. 8vo. B.M. 10,631, ee. 16.
1873. English and Swedish Polar Expeditions. An account of Leigh Smith's voyage in 1873. *The Times* (London), September 29, 1873, p. 12, col. 2.
1873. REV. A. E. EATON. Notes on the Fauna of Spitsbergen. *The Zoologist* (London), November, 1873, pp. 3762-3771, and January, 1874, pp. 3805-3822.
1873. R. VON DRASCHE-WARTINBERG. Reise nach Spitzbergen im Sommer 1873. (Privately printed.) Wien: 1874.
1874. THE MARQUIS OF ORMONDE. A Short Cruise to Norway and Spitzbergen. *Good Words* (London), November, 1895, p. 737.
1878. Den Norske Nordhavs-Expedition, 1876-8. (In Norwegian and English.) Christiania: 1882. 4to.
- Vol. i. Parts 4 and 5 relate to Spitsbergen. As to the same voyage, vide *Petermanns Geog. Mitt.*, 1878, pp. 80, 400, 478; and *Erg. Heft*, No. 63.
1878. CHARLES BOISSEVAIN. Story of the life and aspirations of L. R. Koolemans Beynen. . . . Translated . . . by M. M. (Mrs. Clements Markham). London: 1885. 8vo. B.M. 10,759, b. 9.
1881. A. H. COCKS. Notes of a naturalist on the W. Coast of Spitzbergen. *The Zoologist* (London), 1882, pp. 321, 378, 404.
1881. CLIVE PHILLIPS WOLLEY. Trottings of a Tenderfoot: or a Sporting Visit to the Columbian Fiords and Spitzbergen. London: 1884. 8vo. B.M. 10,470, bb. 3.
1881. ABEL CHAPMAN. A Voyage to Spitzbergen and the Arctic Seas. *Natural History Transactions of Northumberland, etc.*, vol. viii. pp. 138-158. Newcastle-on-Tyne: 1884-89. 8vo.
1882. A. G. NATHORST. Redogörelse för den tillsammans med G. de Geer år 1882 företagna vetenskapliga Expeditionen till Spetsbergen.
- K. S. Vetens. Akad. Handl. Bihang*, vol. ix. No. 2. Stockholm: 1884.
1882. A. H. COCKS. An Autumn Visit to Spitzbergen. *The Zoologist* (London), 1883, pp. 393, 433, 479.

- 1882-3. Explorations internationales des Régions polaires 1882-83. Observations faites au Cap Thordsen, Spitzberg, par l'Expedition suédoise. Publiées par l'Académie Royale des Sciences de Suède. 2 vols. Stockholm: 1887 and 1892. 4to.
- 1886-9. M. LINDEMAN. Kükenthals Spitzbergen fahrten. *Das Ausland*, vol. lxiii. pp. 373-377. Stuttgart: 1890.
- 1888-9. ARNOLD PIKE. A Winter in the Eightieth Degree (Spitzbergen). Pp. 343-351 of Abel Chapman's 'Wild Norway.' London: 1897. 8vo.
1889. PROF. DR. KÜKENTHAL. Bericht über die von der Geographischen Gesellschaft in Bremen in Jahre 1889 Veranstatete Reise nach Ostspitzbergen (Dr. Kükenthal und Dr. Walter). *Petermanns Geog. Mitt.*, 1890, pp. 61-75. Also in *Deutscher Geographische Blätter* (Bremen), 1892, pp. 153, 266; 1893, p. 260; 1895, p. 127. *Ymer*, ix. p. 47.
1890. G. NORDENSKIÖLD. Redogörelse för den Svenska Expeditionen till Spetsbergen, 1890. *Bihang till K. Svenska Vetenskaps Akad. Hand.*, xvii. ii. 3. Stockholm: 1892. 8vo.
1891. LEO CREMER. Ein Ausflug nach Spitzbergen. Berlin: 1892. 8vo.
1891. MAX GRAF VON ZEPELIN. Reisebilder aus Spitzbergen. Stuttgart: 1892.
- 1891-2. R. VON BARRY. Zwei Fahrten in das Nördliche Eismeer nach Spitzbergen und Nowaja Semlja unternommen von S. K. H. Prinz Heinrich von Bourbon . . . in den Jahren 1891 und 1892. Pola und Wien: 1894. 8vo. B.M. 10,470, h. 34.
1892. CAPTAIN BIENAIMÉ and others. Voyage de "La Manche." Nouvelles archives des Missions scientifiques et littéraires. Choix de rapports et instructions publié sous les auspices du Ministère de l'instruction publique, des beaux-arts, et des cultes. Tome v. Paris: 1893. 8vo.
1892. CHARLES RABOT. Jan Mayen et le Spitzberg. Part iv. In *Le Tour du Monde*, Livr. 1713 (Nov. 4, 1893). Paris: 1893. 8vo.
Explorations dans l'océan Glacial Arctique. *Bulletin de la Soc. de Géographie*, 7me. série, tome iv. Paris: 1894. 8vo.
Both these accounts describe the visit of "La Manche" to Spitzbergen in 1892.
1892. AXEL HAMBERG. En resa till norra Ishafvet sommaren 1892 företagen med understöd af Vegastipendiet. *Ymer*, 1894, pp. 25-61.
1893. W. LATEGAHN. Eine Nordlandfahrt in August, 1893: (H. Baedeker) 1894.
1893. F. PLASS. Vergnügungsfahrt nach Spitzbergen. Hamburg: 1894.
1894. H. H. ALME. Welmans Polarekspedition. *Det Norske Geographiske Selskabs Aarboeg*, vol. vi. (1894-95). Kristiania: 1895. 8vo. Pp. 8-36.
1894. TRYGVE HEYERDAHL. "Kaes" reise langs Spitzbergens Vestkyst. Ditto. Pp. 37-50.
This is the account of how they dragged an aluminium boat along the north coast of Spitzbergen from Walden island to Mauritius bay.
1894. Spitzbergen and the Wellman Expedition. *Nautical Magazine* (London), September, 1894, p. 792.
1894. COLONEL H. W. FEILDEN. A Flying Visit to Spitsbergen. *The Zoologist* (London), 1895, pp. 81-90.

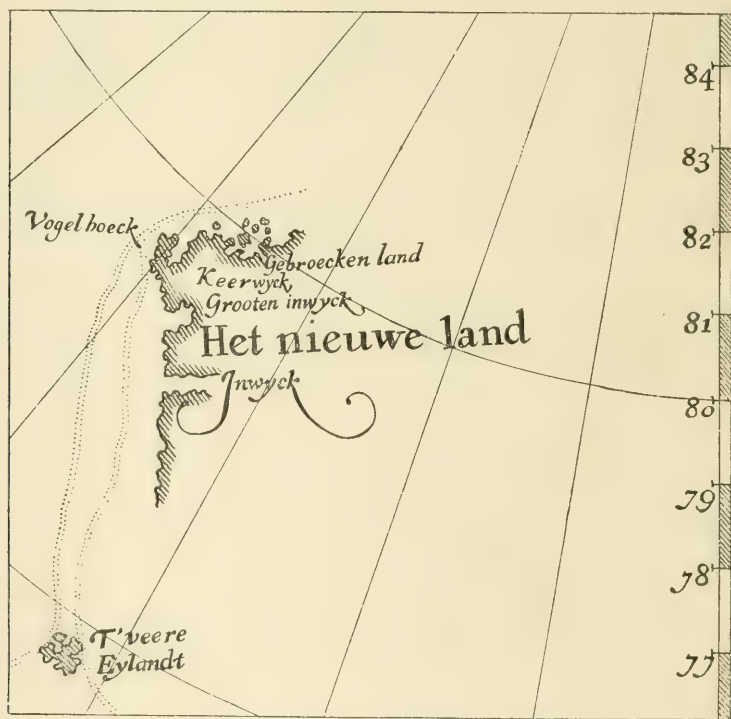
1894. HENRY J. PEARSON. *Beyond Petsora Eastward. Two Summer Voyages to Novaya Zemlya and the Islands of Barents Sea . . . With Appendices on the Botany and Geology by Colonel H. W. Feilden.* London: 1899. Svo. B.M. 10,460, g. 19.
Includes notes on glacial deposits in Green Harbour, Spitsbergen, p. 255.
1894. *Pleasure Cruise to the "Land of the Midnight Sun" and the Spitzbergen Polar Sea by the Orient Company's ss. "Lusitania."* London: 1894. Svo. An illustrated pamphlet issued to advertise the proposed cruise. B.M. 10,460, ff. 18.
1894. VICTOR H. GATTY. *Spitzbergen, Ice Fjord. Ascent of Mount Lusitania. Alpine Journal* (London), xvii. p. 309.
1894. LIEUT. G. T. TEMPLE. *Spitzbergen and Norway in August, 1894. Pleasure cruise . . . by the . . . ss. "Lusitania."* 4to.
1895. *Visit of the Training Squadron to Spitzbergen in the summer of 1895. Geographical Journal* (London), December, 1895, p. 547.
1895. L. F. HERZ. *Tropisches und Arctisches.* Berlin: 1896. Svo. B.M. 010,026, i. 3.
1896. SIR WILLIAM MARTIN CONWAY. *The First Crossing of Spitsbergen. Being an Account of an Inland Journey of Exploration and Survey, with Descriptions of several Mountain Ascents, of Boat Expeditions in Ice Fjord, of a Voyage to North-East Land, the Seven Islands, down Hinloopen Strait, nearly to Wiches Land, and into most of the Fjords of Spitzbergen, and of an almost complete circumnavigation of the main Island. . . . With contributions by J. W. Gregory, A. Trevor-Battye, and E. J. Garwood.* London: 1897. Svo.
1896. SIR MARTIN CONWAY. *The First Crossing of Spitsbergen. Geographical Journal* (London), April, 1897.
1896. J. W. GREGORY. *Across Spitsbergen. Transactions of the Liverpool Geographical Society*, 1898, pp. 41-58.
1896. E. J. GARWOOD and J. W. GREGORY. *Contributions to the Glacial Geology of Spitsbergen. Quarterly Journal of the Geological Society*, 1898, pp. 197-227.
1896. E. J. GARWOOD. *Across Spitsbergen with Sir Martin Conway, with an account of the ascent of Hornsund Tind. Alpine Journal*, 1897, pp. 363-384.
1896. A. TREVOR-BATTYE. *The Birds of Spitsbergen. Ibis* (London), 1897, p. 574.
1896. NILS STRINDBERG. *Karth öfver Amsterdamön med omgifningar. Ymer*, 1897, pp. 13-16.
1896. GEORG WEGENER. *Zum ewigen Eise. Eine Sommerfahrt ins nördliche Polarmeer und Begegnung mit Andrée und Nansen.* Berlin: 1897. Svo.
1896. GERARD DE GEER. *Rapport om den svenska geologiska expeditionen till Isfjorden på Spetsbergen sommaren 1896. Ymer*, 1896. Pp. 1-8.
- 1896-7. CHARLES RABOT. *L'Alpinisme au Spitzberg, Les Ascensions de Sir Martin Conway. Ouvrage traduit et résumé par Charles Rabot.* Paris: 1901. Svo.
- 1896-7. GUSTAF NORSELIUS. *Special Öfver Danskgattet. Ymer*, 1898, pp. 17-23.
- 1896-7. HENRI LACHAMBRE and A. MACHURON. *Andrée and his Balloon.* London: 1898. Svo.

1897. JONAS STADLING. Andrée's Flight into the Unknown. *Century Magazine* (New York), 1897, vol. 55, pp. 81, 155.
1897. JONAS STADLING. A Carrier Pigeon: Andrée's Messenger, 1897. *Century Magazine* (New York), 1898, pp. 477, 706.
1897. PROF. A. G. NATHORST. Undersökningar beträffande den på Kung Karls Land funna stora flytbojen från Andrée-expeditionen. *Ymer*, 1899.
1897. SIR W. MARTIN CONWAY. With Ski and Sledge over Arctic Glaciers. London: 1898. 8vo.
1897. ———. An Exploration in 1897 of some of the Glaciers of Spitsbergen. *Geographical Journal* (London), August, 1898.
1897. E. J. GARWOOD. Additional Notes on the Glacial Phenomena of Spitsbergen. *Quarterly Journal of the Geological Society*, 1899, pp. 681-691.
1897. ARNOLD PIKE. A Cruise on the East of Spitsbergen. *Geographical Journal* (London), April, 1898, p. 365.
1897. G. MEISENBACH. En färd till Sjuöarne Sommaren 1897. *Ymer*, 1898, pp. 127-140.
1897. VICTOR H. GATTY. A Spitsbergen Glacier Expedition. *Alpine Journal*, 1897, pp. 501-506.
1897. LUCIEN JOTTRAND. Croquis du Nord. Bruxelles: 1898. 8vo.
1897. *Spitsbergens Gazette*. The most northern newspaper in the Globe. Published at Spitsbergen weekly in the months of July and August. Nos. 1-9, May-August, 1897.
No more issued.
1898. PROF. A. G. NATHORST. Två Somrar i Norra Ishafvet: Kung Karls Land Spetsbergens kringsegling, Spanande efter Andrée i nordöstra Grönland. Stockholm: s. d. (1900). 8vo.
1898. ———. The Swedish Arctic Expedition of 1898. *Geographical Journal* (London), July and August, 1898.
1898. C. J. OTTO KJELLSTRÖM. En exkursion för uppmätning af Van Mijens bay under års svenska polar-expedition. *Ymer* (Stockholm), 1901, pp. 29-34.
1898. Axel Hamburg. Astronomische . . . Arbeiten der . . . Polarexpedition 1898. *K. Sv. Vetenskaps-Akademiens Handl.* Bd. 39 (1905), No. 6. With a new survey of Sardam (Van Keulen) Bay.
1898. V. CARLHEIM-GYLLENSKIÖLD. Travaux de l'expédition suédoise au Spitzbergen, 1898, pour la mesure d'un arc du méridien. *Öfversigt K. Vetenskaps-Akademie Förhand.* (Stockholm), 1899, pp. 631-652, 887-919; and 1900, pp. 499-515.
1898. DR. F. RÖMER. Auf einem deutschen Fischdampfer um Spitsbergen und König-Karlsland. *Jahresb. Frankfurter Geog. Verein*, 1899-1901, pp. 160-163.
1898. CH. HARTLAUB. Zoologische Ergebnisse einer Untersuchungsfahrt des Deutschen Seefischerei-Vereins nach der Bäreninsel und Westspitzbergen ausgeführt im Sommer 1898 auf S.M.S. "Olga," Einleitung. Published in *Wissensch. Meeresuntersuchungen* . . . , Neue Folge, B. iv. Abt. Helgoland, Heft 2. Oldenburg: 1900. 4to.
1898. PRINCE ALBERT DE MONACO. Exploration océanographique aux régions polaires. *Bulletin du Muséum d'Histoire Naturelle* (Paris), 1899, p. 6.

1898. JULES RICHARD. Notes d'excursions au Spitsberg et aux îles voisines. *Comptes Rendus des séances de la Soc. de Géographie, etc., année 1899*, pp. 66-78. Paris: 1900. 8vo.
The Prince of Monaco's expedition.
1898. GERARD DE GEER. Nya bidrag till Spetsbergens geologi. *Förh. vid 15 : de Skandinav. Naturforskaremötet i Stockholm 1898*. Stockholm: 1899. Pp. 229-231.
- 1898-9. WILLIAM S. BRUCE. Spitsbergen, 1898 and 1899: Voyages with H. S. H. the Prince of Monaco. *Scottish Geographical Magazine* (Edinburgh), 1900, pp. 534-550.
- 1898-1900. O. BACKLUND. Mesure d'un arc de méridien au Spitzberg. Historique général et travaux des missions russes. *Map and Illustrations. La Géographie* (Paris), 1901, pp. 287-296.
1899. PRINCE ALBERT DE MONACO. *Comptes Rendus des séances de la Soc. de Géographie, etc., année 1900*, pp. 304-306. Paris: 1901. 8vo.
1899. V. CARLHEIM-GYLLENSKÖLD. Uppmätning af en meridiangradbåge på Spetsbergen genom en svensk-rysk expedition. *Ymer*, 1900, pp. 209-227.
Contains extracts from Mr. Rubin's report on explorations near Mount Chydenius.
Vide *Geographical Journal* (London), April, 1901, p. 433.
1899. BARON GERARD DE GEER. Om gradmättningsnätets framförande öfver södra och mellersta Spetsbergen. *Ymer*, 1900, pp. 281-302.
Vide *Geographical Journal* (London), April, 1901, p. 434.
1899. ———. Die Gletscher von Spitzbergen. *Verh. Siebenten Internat. G. Kongresses*, 1899, 2 (1901), 299-302.
- 1899-1900. TSCHERNYSHEV. Relation des opérations de la mission russe pendant l'hiver 1899-1900 et l'été 1900. Résumé du rapport de M. Tschernyshev. *La Géographie* (Paris), 1901, pp. 297-302.
- 1899-1900. A. HANSKY. Les Travaux de l'expédition russo-suédoise pour la mesure d'un arc de méridien au Spitzberg. *Map and Illustrations. Revue General Scient.*, 1902, pp. 1117-1130, 1165-1176.
- 1899-1902. TRYGGVE RUBIN. Le réseau de la base suédoise au Spitzbergen. Centraltryckeriet, Stockholm: 1903. Pp. 1-49.
- 1899-1902. Missions scientifiques pour la mesure d'un arc de méridien au Spitzberg, entreprises en 1899-1902 sous les auspices des gouvernements suédois et russe. Mission suédoise. Stockholm: 1903, etc. 4to. In course of publication.
Section I. is to contain the history of the voyages, Section IX. A. the topographic description of the regions explored.
1901. GERARD DE GEER. Rapport till Kungl. Kommittén för gradmätning på Spetsbergen öfver den svenska gradmätningsexpeditionens arbeten 1901. Stockholm: 1902.

THE CARTOGRAPHY OF SPITSBERGEN.

THE list of Spitsbergen maps hereafter printed does not claim to be a complete list; it merely includes all the maps that I have been able to find in a somewhat long-continued search. I have examined the map collections in a great many museums at home and abroad, and I have myself formed a small collection; but doubtless a great many have escaped my observation. One early and important Dutch map, copied by Guérard of Dieppe in 1628, certainly existed, but I cannot



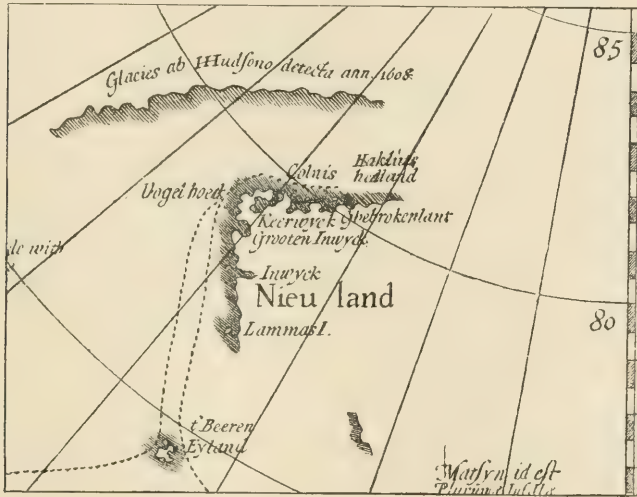
SPITSBERGEN FROM BARENTS' CHART (1598).

find an example of it. The Muscovy Company must have possessed a number of important records of exploration, for we know that they sent boats out to explore, year after year, down to the middle of the sixteenth century. What their servants had discovered up to 1625 was included in the map published by Purchas in that year, but all their later discoveries and records are lost.

All the maps included in my list have been examined by me, unless the

contrary is stated, and I have either obtained original examples, photographs, or tracings of them. My collection of originals and reproductions, bound together in an atlas, has been deposited in the map collection of the Royal Geographical Society, where it may be examined by any one who desires to do so.

The earliest Spitsbergen map of all is, of course, that known as Barents', inscribed 'Auctore Wilhelmo Bernardo,' and dated 1598. It was a posthumous publication, and the best that can be said of it is that it may have been drawn from materials left by Barents. A passage in De Veer's 'Three Voyages' must, however, be recalled, in which he describes how, just before Barents died, he "looked at my (De Veer's) little chart, *which I had made touching our voyage*, and we had some discussion about it." It is scarcely possible to avoid the suspicion that this may be the draft that was published as Barents'. It appeared for the first time in 1599, in the second part of the abridged Latin edition of Lindschoten's *Itinerarium*, published by Cornelius Claesz.

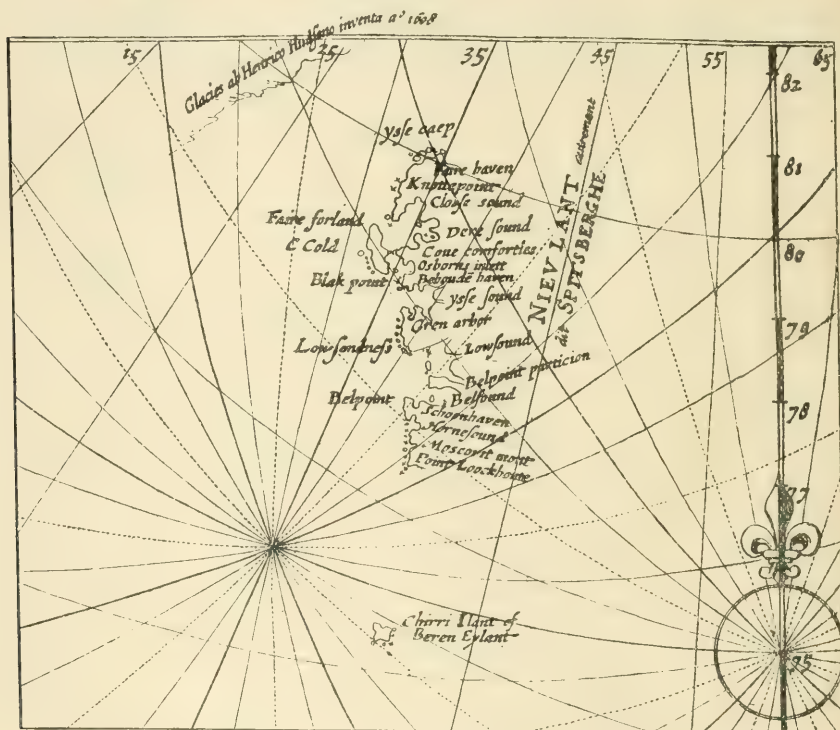


SPITSBERGEN FROM HONDIUS' CHART (1611).

In this map there is an extraordinary blunder. The west coast of the island, which lies, in fact, almost in a straight line north by west, is represented as bent at right angles, so that the part of the coast above the Foreland trends east-north-east instead of west-north-west, the direction of the part south of the Foreland. How the blunder arose we cannot now say; possibly from some written note in which east was set down (as not seldom happens) by mistake for west. This error was remarkably persistent. It is found on all sorts of maps, long after more correct and detailed surveys had been made, and it even infects such surveys. Thus, for instance, though Vischer's world-map of 1639 shows Spitsbergen fairly correctly, as then known, the younger Vischer, in his world-map of 1657, returns to the old Barents type of sixty years before.

In the years immediately following the discovery, the Barents type, of course, held the field. We find it on Franciscus Hoeius' map of the world of about 1600,

in the Bodel Nyenhuis Collection at Leyden; and we find it on Wright's (commonly called Hakluyt's) map of 1600—"the new map" of Shakespeare's *Twelfth Night*. It appears, also, on the second state of Gerardus Mercator's map of the North Polar regions, and on the Molyneux Globe in the library of the Middle Temple. It was used with little change by Jodocus Hondius in his 'History of Amsterdam' (1611), and in the Arctic map in 'Recentes Novi Orbis Historiæ' (Coloniæ Allob., 1612). It even appears on the globe engraved by Abraham Goos and published by J. Janssonius at Amsterdam in 1621, though in 1620, as we shall see, the same A. Goos had engraved a far superior map of Spitsbergen. In 1625 it was still the best representation known at Dieppe, where Jean Guérard



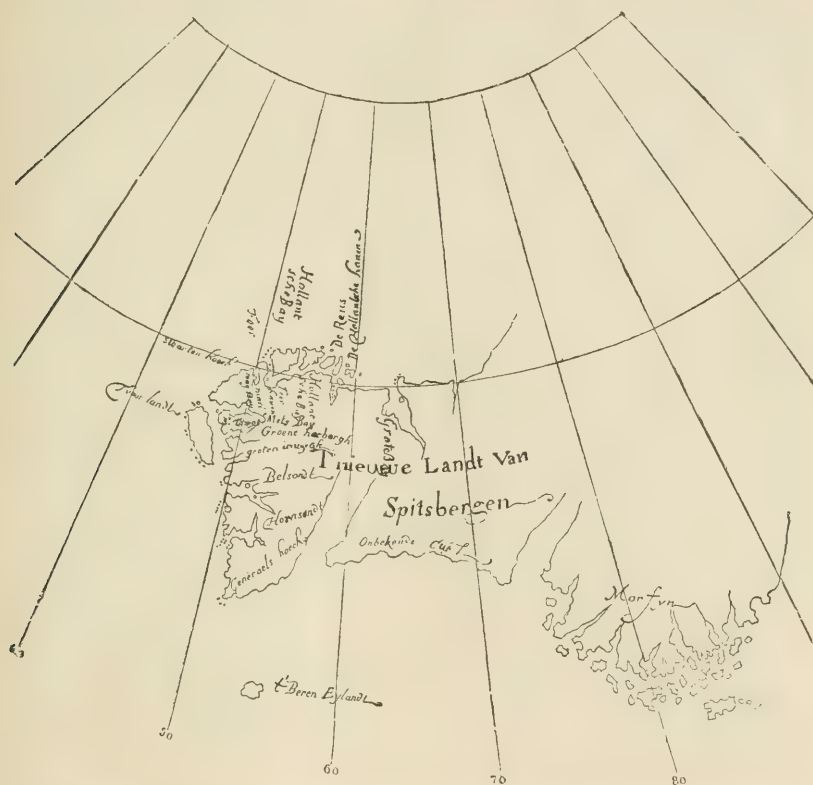
JOHN DANIEL'S CHART OF SPITSBERGEN (1612).

Published in Hessel Gerrits' 'Histoire du pays nommé Spitsberghe' (Amsterdam, 1613).

published it as "Terre de Nieuwe Landt," in his 'Nouvelle Description hydrographique de tout le Monde.' It reappeared again and again in editions of Mercator's Atlas down to 1633, and even in 1657, as we have seen, it was still to the fore.

The first fairly truthful draft of the west coast was the chart known as John Daniel's. The Muscovy Company from the first caused surveys to be made of the coasts explored by their servants, but they seem to have endeavoured to keep these surveys secret. Their expedition of 1611 did a good deal of exploration. Next year the first Dutch whaling ship went to Spitsbergen, under the command

of Willem Cornelisz. van Muyden, piloted by an English deserter named Allen Sallowes, "a man employed by the Muscovia Companie in the Northerne Seas for the space of twentie yeeres before; who, leaving his country for debt, was entertained by the Hollanders, and employed by them to bring them to Greenland [Spitsbergen] for their Pylot." Daniel's chart doubtless went over to Holland in Sallowes' pocket. It was published in 1613 at Amsterdam by Hessel Gerrits, in his polemical tract entitled "*Histoire du pays nommé Spitsberghe*," wherein (p. 12) the following reference is made to it: "*Avons suivy pour la plus grand part les*



MS. MAP OF SPITSBERGEN MADE IN 1614, AND SIGNED "JORIS CAROLUS STIERMAN
CAERTSCHRYVER TOT ENKHUIZEN."

annotations des Angloys, tirés d'unne carte de Johan Daniel, escrite à Londres, l'an 1612." Daniel appears to have been a London cartographer. It is recorded that the East India Company's ships in 1615 used "a platte of John Danyell's making (being Mercator's projection) for their voyage to the Cape. Gerrits' edition of Daniel's map was the foundation upon which the Dutch type of Spitsbergen chart was gradually built up. A degraded copy of it, with the names in Dutch, is found on the globe of Guglielmus Cæsius, dated 1622.

* See the Hakluyt Society's edition of Sir T. V. Roe's 'Journal,' vol. i. p. 3, *note*.



CHART OF SPITSBERGEN, FROM JORIS CAROLUS' NIEUW VERMEERDE LICHT' OF 1631.

many years. They went on marking Whales point without name as the east side of Wybe Jans water and Swarthoeck far away to the east, as if part of some other island, even after 1650, when far truer information was available. From the Goos map (1620) we can follow the development of this type through a whole series. There must have been another Dutch map of similar type published soon afterwards, which Guérard of Dieppe copied in 1628. This was followed, with some changes of names, by the map inserted by Joris Carolis in his atlas of 1634, called 'Het nieuw vermeerde Licht,' etc. The same type was also employed by Vrolicq (1634) to illustrate his remonstrance. The corresponding Dutch case was supported by a large manuscript chart, which belongs generally to the type of the period, but presents many small divergencies, especially to the eastward, not repeated in later charts. It was drawn by Michiel Hsz. Middelhoven, and is now preserved in the Rijks Archief at the Hague. A number of Dutch pilots swore to its truthfulness. Let us hope they have been forgiven. Isaac Commelijn copied Carolus' chart, with the addition of mountains decoratively dotted about, into his 'Begin ende Voortganch vande Nedelandtsche Oostindische Compagnie' (1644), but, while saying nothing of his indebtedness to Carolus, he quotes Daniels' map of 1612 as his chief authority. Next year the same type turns up in Anthony Jacobsz.' edition of Carolus' atlas, and in 1648 in Jacob Aertsz. Colom's 'Der Vyerighe Colom' (Amsterdam), and it reappears in other publications of Colom's, printed and manuscript,* down to 1654. Other Amsterdam publishers made use of it—Pieter Goos and Cornelis de Leeuw in 1650, in a Pascaert (Brit. Mus. 982 (13)); Janssen, in another almost identical (Brit. Mus. 982 (11)); Willem Iansz. Blaeu, in his 'Zeespiegel' (Amsterdam, 1652, chart No. 48); and finally, as late as 1703, in the English translation of Constantin de Reneville's 'Voyages.' Carolus' map of 1634 may, in fact, be regarded as the typical Dutch map-maker's idea of Spitsbergen from about 1620 to 1655. That type, however, as we shall now show, did not stand without a rival in England.

The Muscovy Company's servants no doubt brought home surveys year after year, but they have all disappeared save part of one. This is the lower half of a manuscript chart of the west coast, surveyed in 1613, apparently by R. Fotherby, and now preserved with his journal in the library of the American Antiquarian Society at Worcester, Mass. It is more accurate than the corresponding portion of the map we have next to consider. As the names upon it do not appear elsewhere, it was doubtless never published, and not even used as material by any compiler. This brings us to the very important map published in 1625 in the third volume of Purchas' 'Pilgrims,' reissued in 1631 in Pellham's 'God's Power and Providence,' and finally in the fourth volume of Churchill's 'Collection of Voyages' (1704-1732). This is generally known as Edge's map, because it contains the result of his explorations, but I prefer to call it the Muscovy Company's map, for it is drawn from materials in the company's possession, and includes all the discoveries made by their servants up to the date of its appearance. It is far better than any previous map, and than most that followed it for half a century. It shows the west coasts of Barents and Edge islands, the south point of North-East Land, and, by marking Wiches Land, has given rise to much controversy. This is the last seventeenth-century British contribution to Spitsbergen topography. The Muscovy Company's servants continued their explorations from year to year for many years, but none of their observations have ever been published, nor have

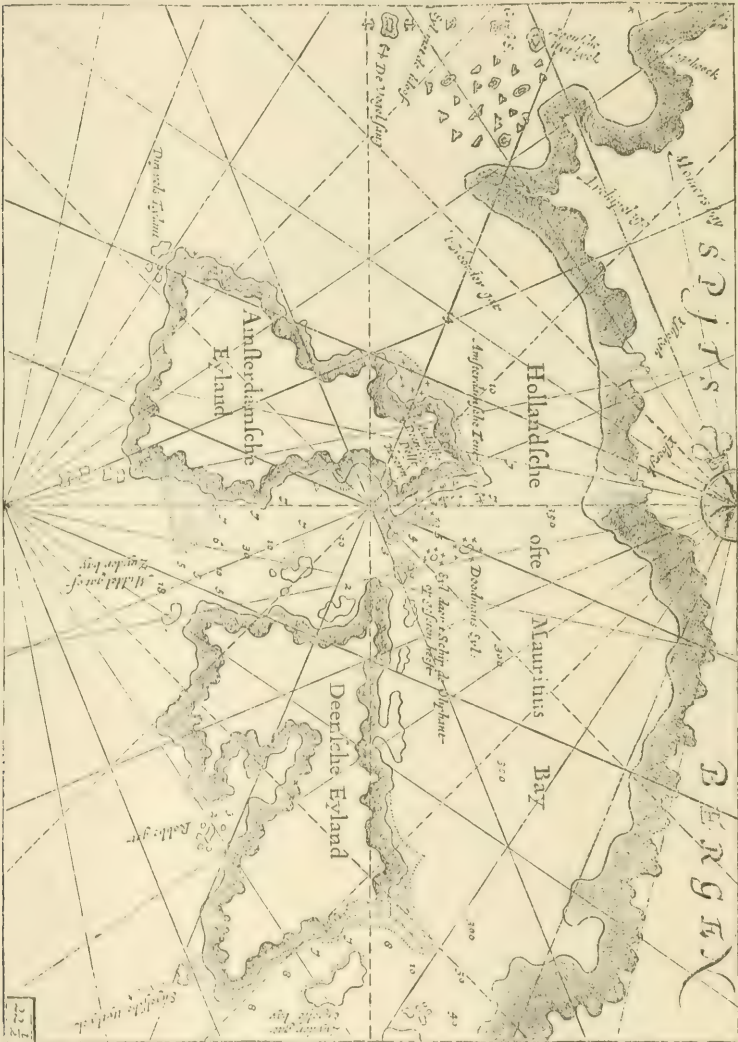
* Manuscript chart in British Museum, S.T.A. (2) f.



THE MUSCOVY COMPANY'S MAP OF SPITSBERGEN (1625).

they survived. This Muscovy Company's map produced considerable influence upon foreign cartographers. A rude Italian copy of it appeared in 1630 in Sir Robert Dudley's 'Dell' Arcano del Mare' (Florence); but that includes some names and rude details in the west coast of Edge island, which I suspect were

De Hollandsche ofte Maurits-Bay.



DONCKER'S MAP OF MAURITUS BAY, 1655.

derived from the men of Hull. Luke Fox's Circumpolar map of 1635 contains a small representation of Spitsbergen, obviously based in a general way upon the Muscovy Company's map; but the north coast is carried much farther north, and three islands are inserted in about lat. 82°, named "Shefferde Orcades," a name I have not met with elsewhere. The Muscovy Company's type of Spitsbergen is

found in the polar chart in Hexham's English edition of the atlas of Mercator and Hondius of 1636, but till 1662 I cannot find that it was known to Dutch cartographers, except that in 1652, in Blaeu's 'Seespiegel,' the above-mentioned polar chart is copied, and the little Spitsbergen with it. But the special map of Spitsbergen in the second volume adheres to the old Carolus type.

It was the enterprising Hendrick Doncker who first gave currency to a more developed Spitsbergen in his atlas in 1655. He also added a valuable local chart of Smeerenburg bay, afterwards copied by Van Loon (c. 1660) and by G. van Keulen (c. 1705-1710). Jan Janssonius, the successor of Mercator and the Hondius, and the rival of the Blaeus, copied Blaeu's copy of Hexham's polar chart in 1657.



BLAEU'S MAP OF SPITSBERGEN, MAINLY AFTER EDGE. c. 1662.

Doncker's type was adopted by most Dutch publishers, such as Van Loon (c. 1660), Colom (c. 1660), and P. Goos (1662).

Down to about 1662 published maps lagged far behind actual contemporary knowledge of Spitsbergen. All the north bays, Hinlopen strait, North-East Land, the Seven Islands, Ryk Yse islands, the position of the east coast of Edge island—all these features were known to the whalers before 1650; none of them were recorded on any known map. But in or about 1662 map-makers began to bestir themselves. Valk and Schenk of Amsterdam issued a large-scale map, very bad in many respects, but at least marking Wyde bay, the mouth of Hinlopen strait and the coast of North-East Land. The names on this map, and its western half generally, were copied by later Dutch map-makers, as we shall see. Colom, in his 'Zeeatlas' of about the same date, though mainly following Doncker's map of 1655, corrected its north coast and depicted Wiche sound (Liefde bay), Wyde bay, Hinlopen

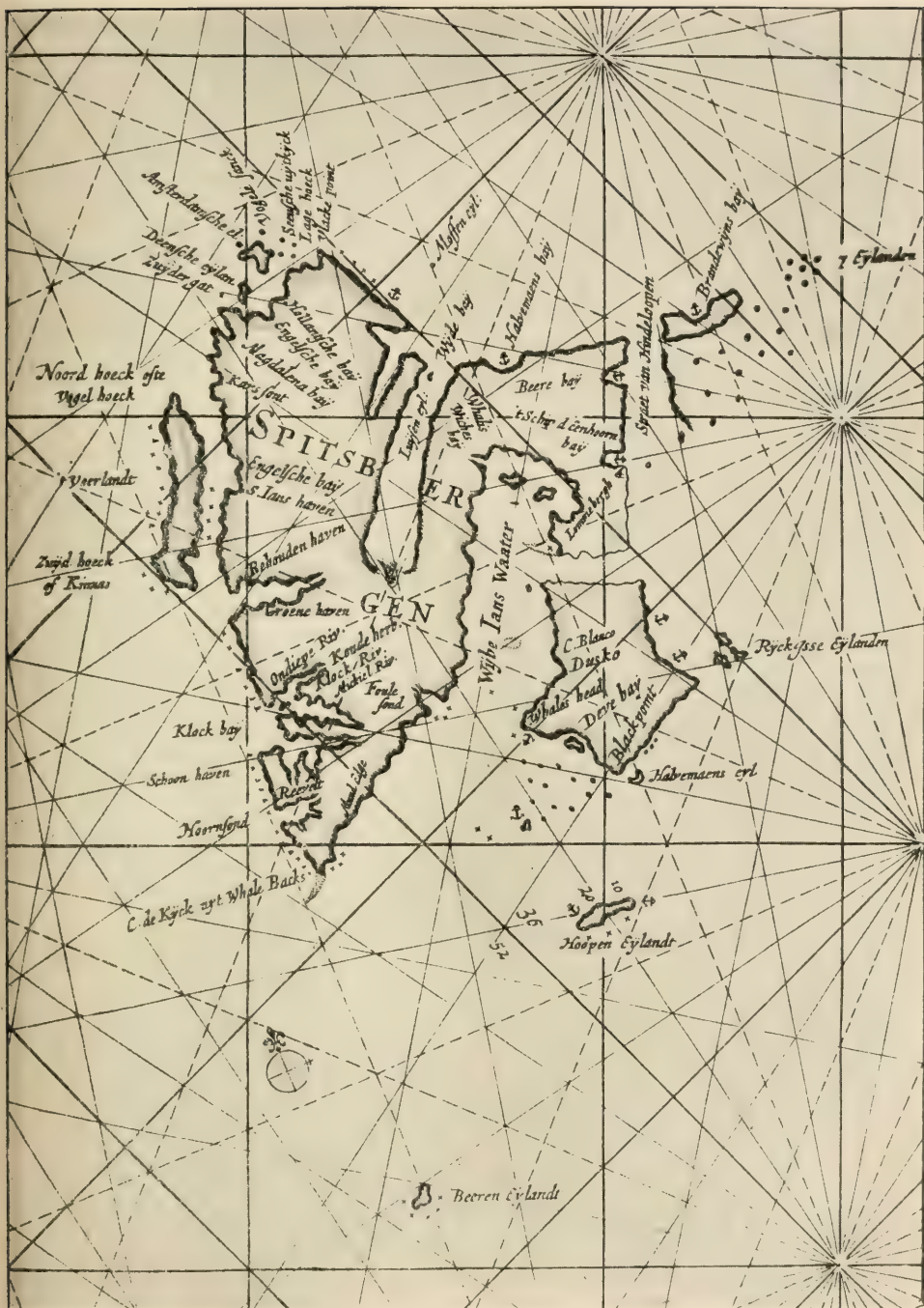
strait, and Treurenberg bay. Whether these efforts were provoked by Blaeu, or whether he was stimulated by them, at all events, about the same time (1662) he published a large-scale 'Spitsberga,' which stands alone amongst Dutch charts. With the exception of the north coast, it copies the Muscovy Company's map of 1625. The north coast is altogether new. It makes the heads of Wiche sound (Liefde bay) and Wyde bay communicate, and it marks and names Hinlopen strait. It introduces a number of names not found elsewhere before or after. It is far more beautifully engraved than any other Spitsbergen map. Curiously enough, though published in Blaeu's famous atlas, it was never imitated, nor were any of its characteristic features repeated by any other Dutch publisher.

The three novel maps of 1662 were really little better than those that had gone before them. Two of them were more imposing, and that was all. But H. Doncker, who in 1655 had definitely replaced Carolus' type by his own, took an important further step in 1663. The map he then published really begins to resemble the form of the country it professes to depict. It definitely marks the eastern limits of Spitsbergen, Barents island, and Edge island. It shows two of the three main bays in Hinlopen strait, and it indicates the Seven Islands and the north and west shores of North-East Land. It also marks the Ryk Yse islands, and it finally omits the drifted off Swartehook, which Colom had retained in his otherwise innovating map of the previous year. On the other hand, it omits a number of bays which were clearly marked by Carolus, and it shows increasing ignorance about the west coast, the bays being now little frequented by the whalers, whose work henceforward was chiefly done at sea. Doncker's new type was copied by Pieter Goos in 'De Zee-Atlas' of 1666, and repeated in other editions of that work—Spanish 1669, English 1669 and 1670. Curiously enough, in or after 1684, Doncker published a much larger Spitsbergen map, rough in execution, in no part more accurate than this of 1663, and in some parts much less accurate. His obliteration of the earlier and truer form of Wiche sound (Liefde bay) may be indicated. Close examination proves that the western and southern parts of this later map were actually traced, and the names copied, from Valk and Schenk's map of 1662, which Doncker's own map of 1663 put into the shade!

However, this large map seems to have been a success, for Jacobus Robijn copied it on a smaller scale, and J. van Keulen did so almost slavishly for his atlas of 1689. G. van Keulen, about 1705-6, reissued this map with little alteration except in the form and name of Wyde bay.

Meanwhile English cartographers left Spitsbergen alone. When first observed it may seem surprising, but on reflection it will be found natural, that from the date of the publication of the Muscovy Company's map by Purchas in 1625 down to the issue of Scoresby's map in 1820, no original or improved chart was issued from England or as the result of English surveys. English whaling was first carried on by the Muscovy Company, who had reasons, or thought they had, for keeping their discoveries and surveys secret. It seems probable that their records were destroyed in the Fire of London—at any rate, they are not known to have been seen for more than two centuries. After their day was done, English whaling utterly declined. On the other hand, throughout the seventeenth and eighteenth centuries, whaling was one of the most energetically pursued Dutch industries. Thus all the new charts were Dutch, and such English Spitsbergen charts as were issued from time to time were belated copies of Dutch publications.

In the text accompanying the English atlas published at Oxford by Moses Pitt (1680-83), it is written, "Had our men . . . been careful to make Charts as



PASKAERT VAN SPITSBERGEN MET ALLE ZIJN ZEECUSTEN ZOO VEL TOT NOCH TOE BEKENT IS,
BIJ HENDRICK DONCKER. 1663.

our industrious Neighbours (the Dutch) oblige their shipmasters to do, divers discoveries had been asserted to this Nation, which are now almost disputed from us. The Dutch gave names . . . to places long before discovered by the English, as if themselves had been the finders." The polar chart that follows is practically a copy of that in Hexham's Mercator, and it seems as though the Oxford editor only knew of the Muscovy Company's survey through that Dutch medium, so completely was geographical research and compilation at that day dominated by the energetic Dutch publishers of maps. So little did English map-makers know of the matter, that when, in 1671, John Sellar of Wapping issued a map of Spitsbergen in the 'English Pilot,' he traced Doncker's old map of 1655, eight years after his greatly improved map of 1663 had been published.

In the year 1707 Giles, the Dutch whaling skipper, made his famous circumnavigation of the whole Spitsbergen group, and discovered the east coast of North-East Land with the islands off it, and especially Giles Land. Another skipper, Outger Rep by name, went over part, at all events, of the same ground, for his name is given to an island off the eastern part of the north coast of North-East Land. These two men, Giles and Rep, were whalers of experience, and seem to have been regarded in their day as the best authorities on Spitsbergen geography. Accordingly, Gerard van Keulen, the enterprising map publisher of Amsterdam, employed them to produce for him an entirely new Spitsbergen chart on a much larger scale than any before published. The result was the 'Nieuwe afteekening van Het Eyland Spits-Bergen opgegeven door de Commandeurs Giles en Outger Rep en in't Ligt gebragt en uytgegeven door Gerard van Keulen,' unfortunately without a date (about 1710). This chart represents the high-water mark of the prescientific surveys of Spitsbergen. Almost every important feature of the coast is set down somehow, though with great inaccuracies in latitudes and longitudes. Some features are depicted which the modern charts wrongly ignore, as, for instance, the little bay of the Basques between Magdalena and Hamburger bays. In point of nomenclature, the Giles and Rep chart is less valuable. Many of the old names had been forgotten, others transposed. Some sites were wrongly identified, as, for instance, that of the English settlement in Bell sound. But, on the whole, the chart is a very fine work for its date. It was not superseded till the modern survey was made. Parry used it on his polar expedition in 1827, and bore witness to its rough general truthfulness. Van Keulen issued it on a smaller scale, with the surrounding seas, in his 'Oostersee Karten.' Zorgdrager practically copied it with unimportant alterations in the various editions of his 'Bloeyende Opkomst der . . . Groenlandsche Visschery' of 1720 and later. It is unfortunate that Giles' own work should not be better recorded. Daines Barrington instituted inquiries about it, and put on record that Mr. C. Heidinger, publisher in the Strand, London, intended in 1775 to use Giles' surveys (of which he had copies) "for a new and accurate map of Spitsbergen, for which he has collected many valuable materials, which he proposes to add to a new edition of his translation of Prof. le Roy's 'Narrative of Four Russian Sailors.'" Heidinger published that narrative in 1774, but the proposed second edition and new map seem never to have been issued, and all the materials collected are lost.

R. van Wyck also freely copied the Giles and Rep chart towards the end of the eighteenth century, making a further confusion in the names. His original manuscript drawing is preserved in the library of the New York Geographical Society, and there is an accurate tracing of it in my atlas at the Royal Geographical Society in London. A small engraved copy of it illustrates B. de Reste's

'Histoire des Pêches' (Paris, 1801, vol. iii. p. 79), and a large engraved copy is included in the portfolio accompanying R. G. Bennet and J. van Wijk's 'Verhandlung over de Nederlandsche Ontdekkingen,' etc. (Utrecht, 1827). Zorgdrager's version of the Giles and Rep chart finally served as foundation for the map introduced by Scoresby to illustrate his 'Arctic Regions' (London, 1820), the chief difference between the two being that Scoresby, by compressing the longitudes approximately to their just extent, made the general contour of the west island fairly correct.

With the survey work and published maps of the modern epoch of exact science we are not here concerned.

CHRONOLOGICAL LIST OF MAPS OF SPITSBERGEN.

1598. The Barents' chart. First published in the second part of the abridged Latin edition of Linschoten's *Navigatio ac Itinerarium* (Amsterdam, 1599). The chart is dated 1598, and inscribed "Auctore Wilhelmo Bernardo." Spitsbergen, as thus represented, occurs on numerous other maps, charts, and globes, such as Gerardus Mercator's Map of the North Polar regions (c. 1599), Wright's Map of the World (1600), the Molyneux Globe in the Middle Temple Library (corrected in 1603), etc.
1611. *Tabula Nautica* of Jodocus Hondius, published in Pontanus' *Rerum et Urbis Amstelodamensium Historia* (Amsterdam, 1611). Spitsbergen is of the Barents type, with a few additions intended to illustrate the voyage and supposed discoveries of Hudson in 1607.
1612. John Daniel's Map. The original was drawn in London in 1612 by John Daniel, the cartographer, from materials belonging to the Muscovy Company. It was published by Hessel Gerritsz. in his *Histoire du pays nomme Spitsberghe* (Amsterdam, 1612).
1612. R. Fotherby's MS. Map. The upper portion is lost. The lower portion is in the library of the American Antiquarian Society at Worcester, Mass. U.S.A., in a MS. journal of Fotherby's voyage in 1613.
1614. Joris Carolus' MS. map. It is dated 1614, and inscribed "*Joris Carolus Stierman Caertschryver tot Enchn*" (Enkhuizen). The original is preserved in the *Dep. des cartes de la marine* at Paris.
1620. *Nieuwe Pascaerte van alle de Zeecusten van geheel Europa . . . afgeteikent door Harmen en Marten Iansz. vermaert Caartschrijvers tot Edam ende gedruckt t'Amstelredam bij Ian Eversz. Cloppenburg op't water in den vergulden Bijbel bij de Corenmarckt. Anno 1621. Abraham Goos Amstelodamensis sculpsit.* 1620.
An example of this map is in the Nordenskiöld Collection, University Library, Helsingfors.
1622. Terrestrial Globe by Guljelmus Cæsius. Spitsbergen is of the Daniel type, but the names are mostly Dutch. Examples of this globe are in the Doge's Palace and the Correr Museum at Venice.
1625. *Terre de Nieuwe Landt* in Jean Guérard's *Nouvelle Description hydrographique de tout le monde* (Dieppe, 1625). Spitsbergen is inaccurately copied from the Barents type.
1625. The Muscovy Company's Map, generally called "Edge's map." Published in Purchas' *Pilgrimes*, part iii. (London, 1625), in Pellham's *God's Power and Providence*, etc. (London, 1631), and in Churchill's *Voyages* (London, 1704-32).
1630. *Carta particolare della Terra di Greneland*, Carta 49 in *Parte seconda del Tomo terzo* of Sir Robert Dudley's *Dell' Arcano del Mare* (Florence, 1630).

1634. *Het Nieuwe Lant van Spitsbergen*, map 22 in Joris Carolus' *Het Nieuw vermeerde Licht ghenaeemt de Sleutel van't Tresor, Spiegel, Gesicht, ende Vierighe Colom des Grooten Zeevarts . . . Ghedruckt tot Amsteldam By Ian Ianssen Boeck-vercooper op't Water inde Pas-kaart* (Amsterdam, 1634). A copy of this book is in the Rijks Archief at the Hague.
1634. *La France arctique*, a portion of a large MS. chart on vellum, probably prepared by Vrolicq in support of his claim for a share in the whaling industry. It belongs to Mr. C. G. Cash, 46, Cumely Bank Road, Edinburgh. An inaccurate copy of this version of Spitsbergen is found on Jean Guérard's *Carte universelle hydrographique* of 1634, an example of which is in the *Dep. des cartes de la marine* at Paris.
1634. *Waere afteyckeninge van't Lant van Spitsbergen. Anno 1634.* Signed Michel Hsz. Middelhouen fecit. MS. map in the Rijks Archief at the Hague. This map was made to accompany the Noordsche Company's protest against Vrolicq's pretensions.
1636. Polar chart in H. Hexham's edition of *G. Mercatoris et J. Hondii Atlas* (London, 1636). British Museum, 2059. f.
1644. *Delineatio Spitsbergæ* in Isaac Commelijn's *Begin ende Voortgangh vande Neederlandtsche Oostindische Compagnie* (Amsterdam, 1644). The text states that the map is based on that drawn by John Daniel in London in 1612.
1645. *'t Nieu gevonden lant van Spitsberge*, before p. 57 in Anthony Jacobsz.' *De Lichtende Colomne ofte Zee Spiegel* (Amsterdam, 1645). The map is a rude copy of that in the Atlas of Joris Carolus of 1634.
1648. Map of Spitsbergen in Jacob Aertsz. Colom's *De Vyerighe Colom* (Amsterdam, 1648), and in the editions of 1649 and 1654. A rude copy of the map in Carolus' Atlas.
- c. 1648. *Der Groote Noorde Zee Wassende Grade Pas Caart Nieulijcks Beschreven door Jacob Aertsz. Colom.* MS. chart on vellum in the British Museum, STA (2) f.
1650. *Pascaart van de Zee-custen van Ruslant . . . Spitsbergen en Nova Zemla Op meus oversien en verbeterd. 1650. t'Amsterdam Bij Pieter Goes . . . en Cornelis de Leeuw.* British Museum, 982 (13).
- c. 1650. *Pascaart van de Zee-custen van Finmarken . . . Ruslant . . . Spitsbergen en Nova Zemla. t'Amsterdam door Ian Ianssen.* British Museum, 982. (11).
This chart is almost the same as the preceding.
- c. 1652. *Pascaarte* drawn by Cornelis Doedsz. of Edam, published by Willem Jansz. Blaeu of Amsterdam. The map of Spitsbergen is an inset.
An example on vellum is in the Nordenskiöld Collection, University Library, Helsingfors. Probably this is the example referred to by S. Muller ('Gesch. der Noordsche Co.,' p. 427, note).
1652. *Regiones sub polo arctico.* A circumpolar chart in Willem Jansz. Blaeu's *Zeespiegel* (Amsterdam, 1652). It was copied from the corresponding chart in Hexham's edition of Mercator's Atlas (1636). The plate was republished in a later state by Valk and Schenk c. 1680 (see below).

1652. *'t Nieuw gevonden lant Spitsberge*. Map 48 in W. Jsz. Blau's *Zeespiegel* (Amsterdam, 1652).
1655. *Pas-caerte van Spitsbergen met alle haer Rivieren, havens, bayen, sanden, en droogten als mede Hoe men C. de Uyt Kyck op Spitsbergen van de Noord Caap en Beeren Eylandt bezeylen sal*. Map 23 $\frac{1}{2}$, before p. 77 in Hendrick Doncker's *De Lichtende Columne ofte Zee-Spiegel* (Amsterdam, 1655).
British Museum, 570 i. 10.
1655. *Pascaart vande zeeusten van Ruslant, Laplant, Finmarken en Spitzbergen*. Map 17, after p. 56, in the same atlas as the preceding. British Museum, 570 i. 10.
1655. Local chart of Mauritius Bay, on p. 79 of Hendrick Doncker's *De Lichtende Columne ofte Zee-Spiegel* (Amsterdam, 1655). British Museum, 570 i. 10.
Copies of this appear in J. Van Loon's *Pascaert* (Amsterdam, c. 1660; British Museum, 982 (16)), and in Van Keulen's *Nieuwe Pascaert* (Amsterdam, c. 1705-10). S. Muller ('Gesch. der Noordsche Co.' p. 427, note) mentions *Een zeer groote geteekende kaart van Spitsbergens noordwesthoek in het bezit (1874) van den heer F. Muller te Amsterdam*. This may be in the Nordenskiöld Collection, University Library, Helsingfors. Muller implies that it formed part of a MS. atlas of Van Keulen.
1656. Map of the *IJssee* in Colom's Atlas of 1656 (not seen by me).
1657. *Nova et Accurata Poli Arctici et terrarum Circum Jacentem Descriptio*. *Apud Joannem Janssonium*. In Janssonius' Atlas of 1657.
British Museum, 982 (10).
This is a copy of Blau's Polar Chart of 1652.
1658. *Pascaert van de Zee-Custen van Ruslant, Laplant, Finmarken, Spitsbergen en Nova-Zemla Nieuwlycx uytgegevon t'Amsterdam bij Hendrick Doncker* . . . A° 1658. Not seen by me.
1661. *Pascaert van Ruslant . . . Spitsbergen en Nova Zemla t'Amsterdam bij Johannes Van Loon*. British Museum, 982 (16).
This also appears in Van Loon's *Klaer-Lichtende Noorte-Star Ofte Zee-Atlas* (Amsterdam, 1661; British Museum, 7 Tab. 87), and in the second edition (Amsterdam, 1666; British Museum, S. 109 (17)).
1662. *Pascaart vande zeeusten van Ruslant, Laplant, Finmarken, en Spitsbergen*, in Pieter Goos' *De Nieuwe Groote See-spiegel* (Amsterdam, 1662).
1662. *Spitzberga*, a map copied from the Muscovy Company's of 1625 with some additions, including Hinloopen strait. It appears in vol. i. of Blau's *Atlas Major* (Amsterdam, 1662). Two walruses, copied from Hessel Gerritsz.' print, are introduced into the frame of this title.
- c. 1662. *Spitzberga. Amstelædami Apud G. Valk et P. Schenk*. Hydrographic Department of the Admiralty, London (x. ii. Akim).
- c. 1662. *Nieuwe Pascaert door Arnold Colom*, in Colom's *Zee-atlas* (Amsterdam, c. 1662). British Museum, Shelf 112 (27).
1663. *Paskaert van Spitsbergen met Alle zijn Zeeusten zoo vel tot noch toe Bekent is*. *Bij Hendrick Doncker*, 1663. In Doncker's atlas. British Museum, S. 4 (18). Reproduced above.
This is the first map to mark the Seven Islands and the east coast.

1666. *De Custen van Noorwegen, Finnmarken, Laplandt, Spitsbergen, Ian Mayen Eylandt, etc.* *t'Amsterdam, bij Pieter Goos op't Water inde Vergulde Zee-spiegel.*

This map appears in P. Goos' *De Zee-Atlas ofte Water-weereld* (Amsterdam, 1666; other editions in 1669, 1670, 1672).

- 1666 *De Zee Custen van Ruslant, Laplant, Finnmarken, Spitsbergen, en Nova Zemla.* *t'Amsterdam, bij Pieter Goos op't water bij de Nieuwe brugh in de Vergulde Zee Spiegel.*

This chart appears with the preceding.

1666. *Pas-kaart van Spitsbergen met alle zyn Zee-kusten zoo veel tot noch toe bekend is.* *t'Amsterdam. By Joannes Janssonius van Waesberge.*

Map 7 in Van Loon's *Zee-Atlas* (Amsterdam, 1666). British Museum, S. 109 (17).

- After 1670. *Nieuwe Paskaert van Spitsbergen, Finnmarken, Laplant, en Ruslant, streckende van Hitlant tot Nova Zemla.* *t'Amsterdam, by Iacobus Robijn inde Niebrugsteeg inde Stuurman.* An example is in my *Atlas of Spitsbergen* in the Library of the Geographical Society, London.

1671. *A Chart of Greenland [i.e. Spitsbergen] Cherry Island and Hope Island by John Seller, in Wapping, in Seller's English Pilot* (London, 1671), vol. i. p. 92. British Museum, 1804, b. 6. This is copied from the Chart in Doncker's atlas of 1655, but the names are changed.

The same Atlas contains a *General Chart of the Northerne Navigation* and a *Chart of the Sea Coasts of Russia, etc.*, both of which contain Spitsbergen on a small scale. The two latter charts reappear in Seller's *Atlas Maritimus* (London, 1675).

1677. *Pascaarte van alle de Zee-custen van Europa . . . door Willem, Pieter, en Joan Blaeu, tot Amsterdam, MDCLXXVII.* On vellum, in the Nordenskiöld Collection, University Library, Helsingfors.

1680. *Pascaert, in J. van Keulen's Le Nouveau et grand illuminant flambeau de la mer* (Amsterdam, 1680-84). Not seen by me.

1680. *A Map of the North Pole and the part adjoining.* Oxon. *At the theater, 1680.* In vol. i. of Moses Pitt's *English Atlas* (Oxford, 1680). A copy of the Polar Chart in Hexham's edition of Mercator's atlas of 1636.

- c. 1680. *Nova et accurata Poli Arctici . . . Descriptio*, by G. Valk and P. Schenk (Amsterdam). This is a second state of the same plate as was used to print Blaeu's Polar Chart of 1652, Spitsbergen and other details being re-engraved. British Museum, 982 (18).

1687. A large-scale map of Spitsbergen, being a division of the *Paskaarte van Ysland Spitsberge en Jan Mayen Eyland.* *t'Amsterdam, by Johannis Van Keulen.* Before page 79 in J. Van Loon and Olaus Jansz. Vooght's *De Nieuwe Groote Lichtende Zee-Facket.* *t'Amsterdam, Gedruckt by Johannes van Keulen.* 1687. British Museum, S. 61 (2).

This map is copied, with some added names, from Doncker's of 1663.

1687. *Nieuwe Paskaart vande Geheele Oosterzé en Noortzé, etc.* *t'Amsterdam, by Johannis Van Keulen.*

In the same atlas as the preceding.

1687. *Paskaart van't Noordelykste deel der Noort Zee.* t'Amsterdam, by *Johannis Van Keulen*.

From the same atlas as the preceding. In the corner of the plate is an engraving of men on *ski*.

1687. A rough chart of Magdalena bay, marking anchorages and glaciers, on page 80 of the same atlas as the preceding.

- c. 1700. *Spitsbergen. Pas-caert met alle haer Rivieren*, etc. Amsterdam, by *Casparus Lootsmann*. 42 x 26 cms. Not seen by me.

1703. Map of Spitsbergen (in *Constantin de Reneville's Voyages*, vol. i. p. 94 (Rouen, 1725), and in the English translation (London, 1703).

- 1705-10. *Nieuwe Pascaart Inhoudende 't Noorder deel van Europa . . . 't Amsterdam*, by *Joannes van Keulen . . . Nieuwelykx Opgesteld door G. van Keulen*.

A local chart of Mauritius bay, copied from Doncker's Atlas of 1655 is inset.

- After 1707. *Nieuwe afteekning van Het Eyland Spits-Bergen opgegeven door de Commandeurs Giles en Outger Rep en in't Ligt gebragt en wytgegeven door Gerard van Keulen*. Map 53 of *Van Keulen's Oostersee Karten*. British Museum, S. 113 (2). Reproduced above.

- After 1707. *Nieuwe Zee-Kaart van het Noorde Gedeelte van Europa Beginnende van de Eijlanden van Hitland en Fero tot Spitsbergen en Archangel, to Amsterdam*, by *Joannes van Keulen*. Map 38 of *Van Keulen's Oostersee Karten*. British Museum, S. 113 (2).

1720. Map of Spitsbergen in *Zorgdrager's Bloeyende Opkonst*, etc. (Amsterdam, 1720).

- After 1771. MS. Map of Spitsbergen, signed "R. Van Wyk Jacz. dell," in the library of the New York Geographical Society. A small engraved copy of this appeared in *B. de Reste's Histoire des Pêches* (Paris, 1801), vol. iii. facing p. 79. A large engraved copy of the same forms part of the portfolio of maps accompanying *R. G. Bennet and J. Van Wijk's Verhandlung over de Nederlandsche Ontdekkingen*, etc. (Utrecht, 1827).

1820. Map of Spitsbergen in *W. Scoresby's Arctic Regions* (Edinburgh, 1820).

Reproductions of several of the above-mentioned old Spitsbergen maps were published by *F. de Bas in Tijdschrift van het Aardrijkskundig Genootschap te Amsterdam* (Deel iii. No. 1).

HISTORY OF SPITSBERGEN NOMENCLATURE BEFORE THE NINETEENTH CENTURY.

THE various points, bays, islands, and other sites in and around Spitsbergen have borne a variety of names at different times. This was partly due to the variety of nationalities to which the frequenters of Spitsbergen have belonged, and to the fact that many of them knew nothing about the traditions of the others. Moreover, records have been badly kept, and much evidence for the nomenclature in use at different dates has been altogether destroyed. Thus it happens that very few points or sites retain on modern maps the names originally bestowed upon them.

When Barents discovered the land in 1596, he saw only parts of the west and north coasts. He named it Spitsbergen, *not* Spitzbergen, as modern writers, since the time of Martens (1671), so constantly misspell it. No Englishman saw Spitsbergen before Hudson in 1607. It suited the English claims to hold that it was part of Greenland, and they accordingly generally called it by that name down to the end of the eighteenth century. The Muscovy Company's men also named it King James' his New-land, and the name New-land is found on several early charts, but soon fell into disuse. In English State papers, Spitsbergen is almost invariably called Greenland, a fact which the compilers of the Calendar of State Papers have not noticed.

In considering the names applied to different sites, it will be most convenient to begin at the South cape, and work thence northward up the west coast, then eastward along the north coast, and then back to the South cape down the east coast. Next we may proceed similarly round the coasts of Barents, Edge, and North-East islands in turn, noticing the outlying islands as we pass closest to them along the main shores. Almost all the old names pertain to points on the coast, so that in this way they can be most lucidly treated for purposes of reference and record.

THE WEST COAST.

Off the South cape there are several islands, one much larger than the rest. Perhaps it is to this island that the name *Ronde Klip* on the maps of Middelhoven (1634) and Blaeu (1662) is intended to apply; but as the island is very low, the cliff referred to is more probably that behind the South cape itself on the main land. The original name of the cape is *Point Lookout*, which we find marked on Daniel's map (1612). Carolus (1614) calls it *Generaels hoeck*. Goos (1620), an important authority for early Dutch names, marks it *Kyckuit*; but it is *Zuydhoeck* on Cæsius' globe (1622). On Vrolicq's map (1634) it is named *Première pointe*; on Middelhoven's (1634) *Z. houwck*; on Carolus' (1634) and Commelin's (1644) *P. Monier*. Doncker (1655) gives it the two names *C. de Kyckuyt* and *Whales backs*, the latter being obviously an English appellation (of the islands?), for which I cannot find any old English authority. These two names appear together

on almost all later maps, till finally Giles and Rep (c. 1710) add a third to them, and mark the cape *Zuyd Kaap*, *Kaap de Uythyk*, *Whales Bak*, *de Zuyd West Hoek van Spitsbergen*. *Point Lookout* is clearly the correct historical name.

Proceeding a short distance up the west coast we come to a little bay, marked *Freeman bay* by Fotherby (1613).

Inland and stretching north from here are some notable mountains, which culminate in one prominent peak, visible afar from the sea to the west, south, and east. This peak was named *Muscovy Company's Mount* by Poole in 1610, and is marked *Moscovit Mont* on the Dutch edition of Daniel's map (1612). The same peak is named *Mount Edge* on the Muscovy Company's map (1625), and the name then given lingers long on Dutch maps, wandering away to the east coast, and being misspelt *Mound Egle* and *Egde*. Possibly, however, *Mount Edge* may have been the hill behind the South cape. Scoresby (1820) calls it *Horn Mount* and *Hedgehog Mount*, the former from its proximity to Horn sound, the latter from its appearance. The name *Mount Hedgehog* is now applied to a hill on the east coast, and may stay there. In modern times the great mountain is generally known as *Horn Sunds Tind*, but its right designation is *Muscovy Company's Mount*.

Lord Suffolk's point is the name given by Fotherby (1613) to the cape just south of the entrance to Horn sound.

Horn sound itself was named by Poole in 1610, after a reindeer horn found there. The Dutch thought the name had some connection with their town *Hoorn*, and so spelt it on many of their maps. It is *Hoorn baye* on Cæsius' globe (1622), but in the text of the Dutch Remonstrance of 1624 and other documents at that time, this becomes *Horesont* and *Oresont*, an obvious blunder which reappears from time to time to a late date. *Horn sound* is the correct designation. Within the sound are minor bays in the north and south coasts. The south bay was the English station, and was called *Bowles bay* by Fotherby (1613). The Dutch called it *Goes haven*. It may have been the *Mottle bay* of the English list (State Papers, 1658), but probably that was in the north side.

The cape north of the entrance to Horn sound is named *Lord Worcester point* on Fotherby's map (1613). The hill behind it was probably the *Lammas island* of Hudson (1607), marked on Hondius' map (1611). Early explorers often mistook hills beheld from a distance for islands.

Fotherby (1613) marks *Lord Nottingham's bay* at a point behind the *Dun islands* of modern charts.

Further up comes a great glacier, now known as Torell's glacier. It is the *Slaad berg* first marked by Giles and Rep (c. 1710), and mentioned by Zorgdrager (1720).

The point south of *Dunder bay* was named *Ice point* by Poole in 1610, and has chanced to retain that designation.

Doncker, on his historically important map of 1655, marked *Rheelant* on an area south of the modern Recherche bay. He was copied by Valk and Schenk (1662), and they in turn by others, who finally misled Scoresby (1820), to whom we owe it that modern charts bear that name on a great glacier area which reindeer can never have frequented. The origin of the blunder is this. There is a small island at the bottom of Recherche bay, known to the Dutch as *Rheen Eylandt*, and so marked on Blaeu's large map (1662). The name strayed away from the island, and became wrongly applied. *Roebuck-land* should be erased from the map.

Bell point, the cape south of the entrance to Bell sound, was named by Poole, in 1610, after the neighbouring bell-shaped hill. It is marked on Daniel's map (1612), and often later down to Scoresby's map (1820).

Bell sound, likewise named from the same hill by Poole (1610), has retained its designation after many vicissitudes. Barents noticed it in 1596, and called it merely *Inwyck* (inlet). On Daniel's map (1612) it appears as *Belsound*. Gerrits records (1613) that it was called *La baye des Franchoy's* by the Basques. Carolus (1614) calls it *Bell sound*, but the Dutch often translated the name into *Klock bay* or *rivier*. That must have been its name on the Dutch chart copied by Guérard (1628), who writes it *r. de Kloeck*. It reappears as *Klock bay* or *Bell sound* for the future, till Giles and Rep (c. 1710) introduced confusion by adding to these the wrong designation *Willem van Muyens bay*. Scoresby (1820) called it *Bell sound* only, and he has been correctly followed by later cartographers.

Within, Bell sound divides into three main bays. The first, running in to the south, was named *Schoonhoven* by the Dutch skipper Willem van Muyen in 1612. Fotherby (1613) called it *St. Joseph's bay*, but the English whalers commonly called it *Ice bay* (Chambers, 1619; Goodlard, 1623). The Dutch systematically called it *Schoonhoven*. Sometimes when Bell sound is mentioned in old writings, it is this bay that is meant. The Norwegians called it *Sör fjord* (Keilhau, 1827). Scoresby (1820) knew it as *Clean bay*, a translation of *Schoonhoven*. The French in 1838 gratuitously renamed it *Recherche bay*. It should be called *Schoonhoven*, and nothing else. The island within it near its south shore, marked *Training Squadron Island* on the Admiralty chart, was known to the Dutch as *Rheen eylandt* (Blauw, 1662).

The branch of Bell sound which runs inland to the east-south-east was called *Lord Ellesmere sound* by Fotherby (1613), but, like the rest of Fotherby's names, this did not "catch on." Whether the English had any name for it is not recorded. The Dutch systematically called it *Sardam bay* from the map of Goos (1620) down to that of Giles and Rep (c. 1710). But the last-named editors, who often made blunders in naming, added to a small bay in its north coast (the Middle Hook haven of the Admiralty chart), the name *Van Keulens baaytje*, in honour of their publisher, G. van Keulen. This name was taken by Scoresby (1820) for that of the main sound, which he accordingly called *Van Keulens bay*. The true old name *Sardam* (*Zaandam*) *bay* should be restored, and *Van Keulen cove* should be the name of the anchorage behind *Eders island*.

We come next to the cape dividing the two main branches of Bell sound. It was named *Point Partition* by Poole in 1610, and the name was never changed till recently, when we find it called *Separation point* on the Admiralty chart. The proper designation should be restored.

The north branch of Bell sound is almost closed by a long narrow island. Here the Hull whalers had their station for many years in the seventeenth century. They called it *the Rock in Bell sound*. The modern Swedish name is *Axel island*.

Behind this rock is a large bay named *Low sound* by Poole in 1610. The name is found on the maps of Daniel (1612), the Muscovy Company (1625), R. Dudley (1630), and in the text of Blauw's atlas (1652). The Dutch often misplace the name *Klok bay* on this sound, but *Klok bay* is a mere translation of Bell sound, and therefore belongs outside the Rock. A worse blunder was made when Giles and Rep (c. 1710) moved Willem van Muyen's name from the cove to which it belongs. Once set adrift, it presently floated over to Low sound, where all modern cartographers wrongly fix it. Its true old name, *Low sound*, should be restored to this

fine bay. Perhaps Low sound was the original *Cold harbour* of the Dutch, as Cæsius' globe (1622) seems to suggest. Eastward, on old charts, Low sound divides into two long branches, which look like sounds, but the north branch is really a wide dry valley. The south branch was never known by any other name than *Michiel Rinders bay*, which has been recently restored to it. To the north branch two names are almost universally simultaneously attached—*Cold harbour* and *Ondiepe rivier*. *Ondiepe rivier* is explained on the Giles and Rep map (c. 1710) to be "a dry fiord full of bogs, where reindeer are plentiful." The name *Cold harbour* is generally written far up it by map makers who did not know it was dry. The true *Cold harbour* is the shallow bay at its mouth, to which the name has recently been restored.

Just outside *the Rock* (Axel island), in the north coast of Bell sound, is a cove, where the first Dutch interloping skipper anchored in 1612. It was named *William van Muyden's haven* after him. The name is first seen on the map of A. Goos (1620), and is hardly ever absent from its right place in any Dutch chart till Giles and Rep (c. 1710) displace it. At a later date the Hull men built their storehouse here, and made this cove one of their stations. We know, from Pellham's narrative (1630) and the English list (State Papers, 1658), that the English name for it was *Bottle cove*. This, however, is the historic *Muyden* or *Muyen haven*, and that name should be restored to it.

The low cape north of the entrance to Bell sound was named *Lowsoundness* by Poole in 1610. Fotherby (1613) tried to call it *Lord Northampton point*. On the Muscovy Company's map (1625), and often later, it is entitled *Lowness*, and that name is preserved for it by Scoresby (1820), and should be retained. Low sound was evidently named from it as Bell sound from Bell point.

The coast between Bell and Ice sounds is fringed by a number of rocks. Baffin (1613) wrote, "In this place are many of these rockes where are great multitudes of foule, and they are called *Lizets Ilands*." The name, spelt *Lisetts* and *Lissetts*, occurs on many maps, from the Muscovy Company's (1625) to Scoresby's (1820), and has recently been restored.

Behind these islands, apparently about halfway between the two sounds, Fotherby (1613) marks *Russell's bay*, named after the chief English whaling skipper of that year.

The cape south of the entrance to Ice sound was named *Shrewsbury point* by Fotherby (1613). In modern days it has been named *Cape Staraschtchin*, after the famous Russian trapper who lived so many years and died and was buried near it. Fotherby's name was never used by any one but himself, and need not be revived.

The great sound north of this point was observed by Barents (1596), who describes rather than names it *Grooten Inwyck*. Hudson (1607) refers to it as *the Great Indraght*. Poole named it *Ice sound* in 1610, and that has been its chief name ever since. Just within the entrance to it is *Green harbour*. The English whalers often applied this name to Ice sound as a whole. This appears from the terms of an agreement made in 1614 between the English and Dutch captains, Joseph and Monier, who use the two names as equivalent. The same usage continued as late as 1654, when we read (State Papers, Domestic, Interreg., vol. 65, No. 70, Jan. 1654) that, whereas Bell sound is 15 miles wide and near 30 deep, *Green harbour* is "yet every way a great deale bigger, the length of that harbour being never knowne."

Coming now to the bays within Ice sound, the first in the south coast is *Green*

harbour, named by Poole in 1610. This name appears on almost all charts from Daniel's (1612) down.

Next to the east comes *Coles bay*, presumably named from the neighbouring reindeer ground, which was known to Pellham (1630) as *Coles Park*, "a fine place," he says, "for venison, and well known to Thomas Ayers." The modern name is *Coal bay*, an obvious blunder, though coal does in fact crop out in the neighbourhood.

Adventure bay comes next, named after a whaling vessel.* Its proper old name, recorded on the map of Giles and Rep (c. 1710), was *Klass Billen bay*, named after Commandeur Corn. Claesz. Bille, a skipper recorded by Zorgdrager as having been active in 1675. His name has been moved across Ice sound to a bay on the other side, where it may as well remain. *Advent bay* is a modern blunder (see p. 202).

The great eastern extension of Ice sound had no early name. It is first marked *Sassele bay* on a map in a manuscript atlas by Van Keulen (c. 1680), known to Muller, but not now discoverable by me. Giles and Rep (c. 1710) call it *Sassele* or *Sassen bay*, and the latter form of the name, retained by Zorgdrager (1720) and Scoresby (1820), is in contemporary usage.

The cape nowadays known as *Gips hook*, is vaguely marked 't *Middelland* by Giles and Rep (c. 1710).

The most easterly bay in the north coast had no old name. It is now known as *Klaas Billen bay*, a name that originally belonged to the modern *Advent* or *Adventure bay*.

North fiord is not marked on any old map.

The little bay in the north coast of Ice sound, near the entrance, was probably named *Behouden (Safe) haven* by Van Muyen when he took refuge there in 1612, or by Poole in 1610. *Behouden haven* is the regular Dutch name from the first. The English also called it *Poopy bay* or *Nickes cove*, names we learn from Baffin (1613). The latter took the form *Portnick* (Heley, 1617). It is marked *Niches cove* on the Muscovy Company's map (1625). The English list of 1658, printed below, still calls it *Port Nick*, which seems to have been its common English name, but *Safe haven* is at least as old and authentic.

Proceeding now up the west coast, the next bay we reach was originally named *Osborne inlet*, probably by Poole in 1610. The name appears on Daniel's map (1612), and is used by Baffin in 1613, and in the English list of 1658. The Dutch always called it *S. Jans haven*, as we find from Goos' (1620) and almost all later maps. The original name has been lost, and might be restored.

The long island opposite this part of the Spitsbergen coast was called *Black Point Isle* by Poole in 1610, but by 1612, as we learn from Gerrits' pamphlet, the English already knew it as *Prince Charles island*, and the Dutch as *Kijn island*. Kijn was the Dutch supercargo who broke his neck by falling down a hill on it in that year. Generally the Dutch called it simply *the Foreland*, the English *Prince Charles Foreland* (to accompany *King James Newland*). Once on a Dutch chart (Blaeu's, 1662) it is named 't *lang Eylandt*.

The south cape of the Foreland was named *Black point* by Poole in 1610, and this name appears on the maps of Daniel (1612) and the Muscovy Company (1625). The Dutch called it *Kijnness*, or Cape Kynnae, after the supercargo who

* Some old charts accidentally misplace the names hereabouts, and thus this bay is sometimes found designated *Michel Rinders bay*. There is no doubt of its correct designation.

lost his life here in 1612, the year in which doubtless the name was given. Numerous Dutch charts give it the double designation, *Zuydhoeck Kynnae*. They knew of the name Black point, but, translating it *Swarthoeck*, they applied it to the next cape up the Foreland's west coast. Scoresby (1820) correctly moved the name *Black point* back to the south cape, where it ought to be kept.

The isolated hill behind it is named *Saalberg* by Giles and Rep (c. 1710).

A little way up the west coast, where the Admiralty chart marks *Goshawk rock*, Valk and Schenk (c. 1662) mark *Persch Riff*. The name is copied by Doncker (after 1684), Van Keulen (1689), Giles and Rep (c. 1610), and Scoresby (1820). Seller, in 'The English Pilot,' translating from Doncker, says 'that west of the Foreland, 1½ league north of Black point, its south cape, are two islands, a cannon-shot apart and the same distance from shore, and that they are bird-islands. A mile north of them, he adds, is "a rock of clear white stones," 1½ mile from shore.

A point described by Poole as 4 leagues north-west of Black point was named by him *Cape Cold* in 1610. The Dutch invariably insert the name *Swarthoeck* somewhere about here, but with the utmost vagueness. The true Black point was the south cape of the Foreland.

Further north and still on the west shore of the Foreland, the Dutch maps from Goos' (1620) downwards almost invariably mark a cape with the name *C. Siettoe*. Muller says that in the manuscript atlas of Van Keulen (c. 1680) the name is spelt *Setie Taey*, and he suggests it may mean "Zet je taai." Scoresby and Lamont mention a *Devil's Thumb* on the west coast of the Foreland. Was this identical with Cape Cold or Cape Siettoe?

The north cape of the Foreland was named *Vogelhoeck* by Barents (1596), *Fair Foreland* by Poole (1610); both names have been used indifferently down to the present day.

Somewhere round in the east coast of the Foreland, approximately opposite Cove Comfortless, was a bay referred to by Fotherby (1613) as *Freshwater bay*. Both bay and name have vanished from modern charts.

The shoal which almost blocks Foreland sound in about lat. 78° 42' was noticed by Barents (1596). It is named *the Bar* on the Muscovy Company's map (1625), and *'t Riff* on the map of Giles and Rep (c. 1710).

South of this in the east coast of the Foreland, and almost opposite *Osborne inlet*, is a bay named *Seahorse bay* by Baffin in 1613. In Dutch it was called *Zeelonde bay*, which Giles and Rep (c. 1710) carelessly misspelt *Zeelonde baay*, thus giving rise to Scoresby's (1820) *Zealand bay*. Within it, in its north shore, is a creek named by Giles and Rep *Pieter Winters Baaytje*, after Pieter Pietersz. Winter, a Dutch skipper of about 1700, mentioned by Zorgdrager (p. 321, German edit.). Modern charts wrongly transfer Peter Winter's name to the main bay.

The sound dividing the Foreland from Spitsbergen is conveniently known as *Foreland sound*. Barents in 1596 entered it, and, being turned back by the bar, called it *Keerwyck*, a name which occurs on some of the earliest maps and on Cæsius' globe (1622). Poole (1610) named it *Foul sound*. Valk and Schenk (c. 1662) and most later Dutch cartographers call it *Voorlands fioerd*. It is Zorgdrager's *Hinter-Vorland*. The north end of it was the earliest English whaling station. Gerrits (1613) says the English set up their tents on both shores. This north end of Foreland sound, with the modern Kings and Cross bays, seems at first to have been called by them *Whales bay*, but by 1613 they had definitely

applied the name *Sir Thomas Smith bay* to the north end of the sound. That name is used by Baffin and other writers, and is found on the maps of Carolus (1614) and the Muscovy Company (1625). Giles and Rep (c. 1710), harking back to old days, revive for it the name *Walvisch bogt*, and Scoresby (1820) seems to have christened it anew *Bay of Birds*, from the neighbouring Vogelhoeck.

Within Sir Thomas Smith bay, in the coast of the main island, is a bay marked *English bay* on modern charts and most old ones. Its original name, marked on Daniel's map (1612), was *Cove Comfortless*. That was still used in the English list of 1658.

The cape forming the eastern termination of the north end of Foreland sound is vaguely indicated by Valk and Schenk (c. 1662), and named *Quade hook*. The name is copied by Doncker (after 1684), by Van Keulen (1689), and by Giles and Rep (c. 1710), and has been adopted on modern charts.

We now come to the modern *Kings bay*. It was named *Whales bay* by Hudson in 1607, and *Deer sound* by Poole in 1610. The former name is not found in any map, but Daniel (1612) marks "*Dere sound*." The neighbouring bay, as we shall see, was called *Close cove*, and a creek in it *Cross road*. The Dutch seem to have blundered with these names. Goos (1620) misspells the name as *Kras sond*. Guérard (1628), copying some lost Dutch chart, changed Kras into *Gars*. Cæsius' globe (1622) calls the bay *Engelsche bay*, which Vrolicq (1634) translates *B. aux Anglois*. Middelhoven (1634) names it *Kar sondt*, and most later Dutch maps print the name in one or other of the forms *Kar*, *Karr*, *Kars*. Giles and Rep (c. 1710) are the first to name it *Koninks bay*. Zorgdrager (1720) returns to *English bay*. Scoresby (1820) adopts the name *Kings bay* from Giles and Rep, and attaches to its north-eastern harbour the old name *Deer sound*. Modern charts follow Scoresby's usage, which it would be difficult now to change. That the old name *Deer sound* remained the regular English designation is proved by its inclusion in the official English list of 1658.

The bay opening to the north out of Kings bay was named *Close cove* by Poole in 1610. Daniel (1612) marks it *Closse sound*. The anchorage in its western side (now marked *Ebeltofts harbour*) was named *Cross road* by Pool, and that became the name commonly applied to the whole bay, though the strict meaning of each term was not forgotten. The Dutch always call the bay *Kruys sond*. It is clear that the old names should be restored, the main bay being *Close bay*, and the small harbour *Cross road*.

The headland named *Mitre cape* by Scoresby (1820), and *C. Mitra* on modern charts, was called *Collins cape* by Hudson (1607), and this name should certainly be revived. It only appears on a map once, and then misspelt. Hondius (1611) marked it "*Colnis*."

The *Seven Glaciers* that descend to the sea between Collins cape and Hamburg bay were noticed by the old whalers, who named them the *Seven Icebergs*, iceberg being the name for what we call a glacier. They are first marked by Giles and Rep (c. 1710), and always later.

The next bay north of them is *Hamburg bay*. It is first marked by Giles and Rep (c. 1710). This was the station of the Hamburg whalers, first occupied by them in or shortly after 1642. This may be the *Crooke haven* of the English list of 1658.

North of it is a smaller bay, not marked on any modern chart except the French chart, No. 929. Vrolicq occupied it in 1633, and it is named on his map (1634) *Port Louis ou Refuge françois*. In many Dutch charts, from Valk and Schenk's

(c. 1662) to Giles and Rep's (c. 1710), it is named *Baskes bay*. Beechey mentions it as the site of a Russian trapper's hut.

The cape south of the entrance to Magdalena bay has received many names. It appears to have been named *Knotty point* by Poole in 1610. He writes, "When the Fayer-forland did bear S. by E., it being 2 miles from me, I saw the land beare N.E. by N. about 9 leagues off, the which because it was full of knottie mountains, I called Knottie point; and between Knottie point and Fayer Foreland I saw a great bay, which because it was foggy on the sudden, I could not discover." If we take this account textually, Knotty point falls at the snout of the midmost of the Seven Glaciers, which is clearly impossible. On the other hand, whatever latitude of error we grant to Poole, if he was near Fair Foreland, he could not have seen land north of Magdalena bay. Supposing him to have been not 2 but 11 miles north by west of Fair Foreland, the cape south of the entrance to Magdalena bay would have been north-east and north of him, and about 9 leagues away. But if he guessed his distance from Fair Foreland so erroneously, what reliance can we place on his guess of 9 leagues? Again, take it that Knotty point is the cape south of the entrance to Magdalena bay, where is the great bay "between Knottie point and Fayer Foreland, . . . which because it was foggy on the sudden, I could not discover"? Poole did enter Kings bay and the other bays there, so it cannot have been them. On the other hand, *he did not enter Magdalena bay*. I think it probable that he named the cape south of the entrance to that bay Knotty point when he first saw it; that fog came on, and he confused this cape with the cape north of that bay. We know Gurnerd's Nose to be the south-west point of Danes island. Poole presently states that the entrance to Fairhaven is between Gurnerd's Nose and Knotty point, and that there is an island (*Moss island*) in the entrance. This makes Knotty point the cape north of Magdalena bay beyond all question, and so it is marked on the Muscovy Company's map (1625). On Daniel's map Knotty point is vaguely marked, Magdalena bay not being indicated at all. If we take Knotty point to be the northern cape, Magdalena bay is clearly the great bay which Poole did not discover, and it is the only bay that he can have referred to. On the other hand, the English list of 1658, which writes the names in order from south to north, introduces Maudlyn sound between Knotty point and Fairhaven. The best conclusion to come to is that the true *Knotty point* is south of the entrance to Magdalena bay, but that Poole (before identifying that bay) thought it was identical with the point north of it, and so miswrote his account of the entrance to Fairhaven. If Fotherby's (1613) "plat" of Fairhaven ever turns up, this point will be cleared up, and not before. Carolus (1614) marks it *Swartenhoeck*. The Dutch in 1632 called the cape in question "*den cleynen hoek*." Muller (N. Co., p. 434) states that it is named *Westhoeck* in the manuscript atlas by Van Keulen, to which he had access. Giles and Rep (c. 1710) name it *Magdalena hook*, and that name has been in common usage ever since, and had better be retained.

Magdalena bay was entered by Barents (1596) and named *Tusk bay*, but the name did not catch on. Already it is marked by Carolus (1614) *Mari mag. bay*, by Goos (1620) *Magdalenen sond*, and by Cæsius (1622) *S. Maria Magdalene sond*. The name was universally accepted thenceforward. Daines Barrington states that the English sailors pronounced it Mac-Helena. Within Magdalena bay on its southern shore is a promontory, with an island off its point and an anchorage to the east. The island was named *Jan Donker island*, and is so marked on the manuscript map by Van Keulen (Muller's), and on the Giles and Rep map (c. 1710).

The anchorage was named *Trinity harbour* by Fotherby (1614). Scoresby (1820) marks it *John Duncan's Bight*; it is the *English Cove* of modern charts. Fotherby's name should be revived.

A mountain on the promontory between Magdalena bay and Fairhaven is named the *Headless Hog* (*Varken sonder hooft*) by Giles and Rep (c. 1710). Muller (N. Co., p. 434) says it is also so marked in the Van Keulen manuscript atlas (c. 1680-90).

The cape north of Magdalena bay has no name on modern charts. As it was marked *Knotty point* on the Muscovy Company's map (1625), and as Poole certainly once referred to it by that name, it should, I think, be so called once more.

We thus come in due sequence to the famous *Fairhaven*, which Poole named in 1610. "Between Knotty point," he writes, "and Gurnard's Nose (Danes island) is a haven, in the entrance whereof is an island (Moss island). This haven goeth out on the north-west side of Gurnard's Nose. I named this haven the *Fair Haven*." The phrase about "going out" is obscure, but clearly Poole means that you come in at one end of the haven and go out at the other, and that it lies between an island and the mainland. Fairhaven is, in fact, the sound between Danes island and the mainland, and more particularly the inner part of it within Moss island. Fotherby in 1614 drew a "plat" of it, which Purchas unfortunately did not publish. Fairhaven is marked on the following maps: Daniel (1612), Carolus (1614), Goos (1620), Guérard (1628), Vrolicq (1634), Carolus (1634), Colom (1648). Carolus (1614) misspells it *Feer-haven*, and is followed by Goos. Guérard makes matters worse by calling it *b. ferer*. Carolus later (1634) writes it *Beerhaven*, and is copied by Colom. Thus arises the *Beere bay* of Valk and Schenk (c. 1662) and their copyists, Doncker (after 1684) and Van Keulen (1689). Other Dutch map-makers name it *English bay* or the *English harbour*. It is so referred to by Vander Brugge (1634), and on most Dutch maps after that date. At first the east end of the sound is meant, but the name gradually drifts away to the south-east corner of Mauritius bay, where it has no sense. The entrance to the sound from the west is frequently called *South gat*, first, I believe, on Doncker's map (1655). Sometimes the names *South gat* and *English bay* are written together, as on Doncker's local map (1655). The probable site of the English whaling-settlement was at the south-east corner of Danes island.

That island is first named *Danes island* on Doncker's map (1655), and generally later. It has not been changed. The south-west point of the island was called *Gurnerd's Nose* by the English, and *Engelsche Uytkyk*, or the *English Outlook*, by the Dutch. Poole, as we have seen, named it Gurnerd's Nose in 1610.

The well-marked bay in the west coast of Danes island was always called *Robbe bay* on Dutch maps from Middelhoven's (1634) to that of Giles and Rep (c. 1710). Vrolicq (1634) marks it *Port St. Pierre, appelé par les danois Copenhavre baie et par les holandois a pellé Robes baie*. Giles and Rep are the first to add the alternative name *Danes bay*, which was copied by Zorgdrager (1720) and Scoresby (1820). The modern Norwegian name is *Kobbe bay*, a mere translation for *Robbe bay*, which is the form that should be maintained.

In the north coast of Danes island is a small bay that has been much frequented. The Smeerenburg Dutch called it *Houcker bay*. Here in 1634 the *Cookery of Harlingen* was set up, there being no room at Smeerenburg for more cookeries. Behind the *Cookery of Harlingen*, Martens (1671) says there was "running water." It is marked "vars water" by Giles and Rep (c. 1710). On the shore of this bay Mr. Arnold Pike built his hut, and near it Andree set up his

balloon-house. The bay was renamed *Virgo bay* after Audrée's steamer, but it should be called *Houcker bay* as of old.

Hereabouts Zorgdrager (1720) vaguely marks *Zetje Fan*, apparently the name of the north-west cape of Danes island, and the counterpart of *Zet je taai*.

The sound between Danes and Amsterdam islands was confusedly named in old days. Middelhoven (1634) names it *Middel gat* lucidly enough, and that name occurs on most Dutch maps, but it was not commonly used by the Smeerenburg whalers themselves. Looking at this stretch of water from the point of view of Smeerenburg, they called it indifferently *South bay* and *West bay*. The name *Danes gat* is of modern introduction. *Middle gat* is the historically correct designation.

Within this sound, between Smeerenburg and Houcker bay, is an island called *Deadmans Island*, frequently referred to in the old writings. On Doncker's local chart (1655) it is marked 2 miles further east. A little west of it Doncker marks another island "Eyl daer 't Schip de Oliphant op geseten heeft." He also marks a number of other islands which do not seem to exist.

Amsterdam island was landed on by Barents (1596), but not specially named. He called this group of islands *Gebroocken Land*, and that name is found on the earliest maps. As soon as the Dutch settled there the island no doubt received the name, which has adhered to it ever since. It is found in many early documents, but not, I think, on any map before Doncker's (1655).

Along the curved south shore of the flat spit of land projecting at the south-east corner of Amsterdam island *Smeerenburg* was built, with its warehouses and cookeries. The slightly curved bay in front of it was called *Smeeren bay*. The arrangement of the warehouses from east to west was in the following order: Amsterdam, Middelburg, Flushing, Danes, Delft, and Hoorn. Five of these names are marked on Doncker's local map (1655) and others copied from it. Vander Brugge's journal (1634) contains names of several points in the neighbourhood. Thus, on the island, were the north, south, and west *Salaet* hills, where scurvy-grass grew. The three-topped snow-mountain in which the island culminates is named by Zorgdrager (1720) *Marri met de Brosten*, which Muller says should be *Moer* (mother) *met de borst*. It is also mentioned by Martens (1671).

The conical hill at the west extremity of Amsterdam island was called *the Beehive*. Its name is sometimes by error ascribed to the island off the north point. That was the *Devil's island*. The north point was named *Hakluyt headland* by Hudson in 1607, and that name appears on the maps of Hondius (1611) and the Muscovy Company (1625). It has fortunately survived. Daniel (1612) marks it *Ysse caep*. The Dutch seem to have known it as *Quade hoek* or *Duyvels hoek*, both names appearing together on the maps of Giles and Rep (c. 1710) and Zorgdrager (1720).

The great bay bounded on the west by Amsterdam and Danes islands, and on the east and south by the mainland, was named as a whole *Dutch bay* or *Mauritius bay*. *Hollandsche bay* is first marked by Carolus (1614). The name *Mauritius bay* does not seem to appear on any map before Doncker's local map (1655), but it is of early and frequent occurrence in Dutch official documents, and is to be regarded as the best name for the bay. It was never known as *Smeerenburg*, which modern map-makers have applied to it quite erroneously. Smeerenburg was a settlement, not a bay. The Dutch, who went there in great numbers, employed many names for minor localities which are mostly forgotten. Zorgdrager (1720) explains that in his time Mauritius bay was reckoned from Smeerenburg southwards. North of Smeerenburg the sound was called *North bay* or *gat*.



Within Mauritius bay in its east coast, Valk and Schenk (c. 1662), and after them Doncker (after 1684) and Van Keulen (1689), mark a cove *Slaad bay* south of the two north glaciers. This is doubtless the bay into which the third glacier empties, opposite the middle of Danes island. The same authorities mark *Ys hoek* south of it, and further south *Beere bay* by mistake for Fairhaven, as above explained. Giles and Rep mark a strange *Zuyd Bay rivier*, apparently flowing down north-westward from far inland, and emptying itself approximately into Slaad bay. It is made to rise in a *lak*, which Zorgdrager depicts surrounded by mountains.

Van Keulen's manuscript atlas (c. 1680-90), Giles and Rep's map (c. 1710), and Zorgdrager's map (1720) mark the incomprehensible name *Makelyk Oud* at three points in Mauritius bay. It is also mentioned in Zorgdrager's text. The position of these points is as doubtful as the meaning of the name, which the best Dutch scholars are unable to explain. One point may be the north-west point of Spitsbergen. The second, named also according to Muller *Krayennest*, is further south in the east coast of the bay. The third, marked by Giles and Rep (c. 1710) "*3rd or Nieuw Makelyk Oud*," is in the south coast of Fairhaven.

The *North bay* or *gat*, as above explained, is the sound east of Amsterdam island by which Mauritius bay was entered from the north. It is mentioned by Vander Brugge, and first marked on a map by Doncker (1655).

THE NORTH COAST.

Having completed our examination of the west coast, we now come to the north coast and the islands lying off it. It was referred to by the old Dutch whalers as *Om den Oost*, according to Zorgdrager.

The north-west cape was named *Lage hoeck* (*Low point*) by the Dutch, and is found so designated on most Dutch maps from Doncker's (1655) downward. Giles and Rep (c. 1710) wrote somewhere near it the name *Wagepat*, probably a mistake for *Vlacke point*, which was a name of the next cape to the east. The modern name *Foul point* has no historical authority. *Low point* is correct.

The bay east of Low point was called *Vogel bay* by the early whalers. It is so marked by Goos (1620), and *B. aux oiseaux* by Guérard (1628). Carolus (1634) and Commelin (1642) call it *De groote Vogel baij*. As the Zealanders used it for their first whaling station, it was also called *Zeeland bay*, and that is the name applied to it in Van der Brugge's Journal (1634). The group of islands in it was called *Archipelago*, a name which occurs with various spellings in Van der Brugge's 'Journal' (1634) and on the maps of Valk and Schenk (c. 1662), and his successive copyists down to Zorgdrager (1720). Blaeu (1662) alone names it *Baij met de Eylanden* and *Somer baij*. The modern English name *Foul bay* is evidently a mistake for *Fowl* (*Vogel*) *bay*, which is what we ought to call it.

The coast between Fowl bay and the next bay to the east runs out to at least three capes. One of these, probably the one most to the west, is referred to by Van der Brugge (1634) as *Albastert houck*.

Off this coast lie four islands, now known as *Vogel Sang*, *Cloven Cliff*, and the *Inner* and *Outer Norways*. The haven behind them is wrongly named Fairhaven on modern charts. Fairhaven was more than 10 miles further south.

Vogel Sang is called *Cape Barren* on the Muscovy Company's map (1625). The Dutch always knew it by the name it correctly retains. The first map-maker to mark it was Doncker (1655).



Cloven Cliff is marked *De Reus* (the Giant) on Carolus' map (1614), *Saddle Island* on that of the Muscovy Company (1625). Doncker is the first to put it on his map (1655) as 't *Eyland met de Kloof*. Valk and Schenk (c. 1662) call it *Klip met de Kloof*, Martens (1671) calls it *the Clifted Rock*. It becomes *Kloofde Clip* on the map of Giles and Rep (c. 1710), and finally *Cloven Cliff* on Scoresby's (1820).

The two *Norway islands* lie north and south of one another. As the old charts generally place them east and west, it is impossible to tell from them to which island a particular name should be attached. The names themselves, however, help us. One of them is the *Zeeusche Uytkyk*, or *Zeeland Lookout*. This must have been the *Outer Norway island*, whose east point still retains the name. Various names, such as *Bear island* (Muscovy Company's map, 1625) and *Goose island* (Doncker, 1655), may most probably be assigned to the *Inner Norway island*, but not with much assurance.

Returning again to the mainland, the next point that calls for attention is the cape west of the entrance to Red bay. *Fox point* is its true English name, as we learn from the Muscovy Company's map (1625). The name was still in use in 1658, when the English official list was drawn up. The Dutch called it *Vlacke point*, a name first found on Doncker's map (1655). A shoal near this cape is mentioned by Zorgdrager (1720) under the name *Rift van de Uytkyk*.

Red bay, or more accurately *Red-cliff sound*, was named by Fotherby in 1614. The Dutch in the same year named it *Monier bay* after Antonie Monier, commissary-general of their fleet in 1614. Monier bay is found on almost all Dutch maps from Goos (1620) downward. One or two call it *Roo bay*, not in memory of the English name, but by mistake for the neighbouring Red beach. Carolus (1634), and after him Commelin (1642), name it *S. Laurens bay*. In the same year (1634) Vrolicq calls it *Vausques bay*. His map indeed is so vague that Fowl bay would suit as well, so far as position is concerned, but the bay itself, with its deep double head, is clearly indicated. Moreover, the Dutch would not have allowed the Basques in 1633 to fish in Fowl bay, which was the Zealanders' station; so that Red-cliff sound must have been Vrolicq's *Basques bay*. The fact that the cape east of the entrance was named *Biscayer's hook* confirms this attribution.

The bottom part of *Red-cliff sound* is divided by a cape into two smaller bays. Fotherby named the cape *Point Deceit*. Blaeu's map (1662) marks the cove west of it *Ayer bay*, and the east cove *Beeren*, for *Bear bay*. A somewhat different position for *Ayer bay* is, however, implied by the text of Doncker's atlas (edit. of 1655).

The point at the entrance of Redcliff sound, on the east, is *Point Welcome* (though in modern charts that name has been displaced). Fotherby named it in 1614. Returning from the east across Broad bay, he writes, "we came over the bay to Point Welcome, which I so named because it is a place where wee often times rested when wee went forth in our shallops." It is so marked in the Muscovy Company's map (1625). Blaeu (1662) by mistake names it *De Vlacke punt* or *De Lange hoeck*. The proper Dutch name for it was *Biscayers' hook*. Zorgdrager makes its identity plain. He describes it as "a little east of the *Zeeusche Uytkyk* . . . a long pointed strip of land stretching into the sea with good anchorage near it—still known as *Biscayers' Hook*."

The wide shallow bay between this point and the next cape to the east was named *Broad bay* by Fotherby in 1614. Vrolicq (1634) calls it *B. Diric*. Fotherby named the coast of it *Red beach*, which is marked on the Muscovy Company's map (1625). The Dutch called the land within this bay *Rhenevelt*, and it was here they came from Smeenburg to hunt reindeer. The name occurs on many maps.

They called the bay *Roo* or *Roode bay*, names which occur on the maps of Doncker (1655), Valk and Schenk (c. 1662), and many more. Colom (c. 1662) alone calls it *Renefelt's bay*. Martens (1671) says that on the Rhenevelt "there is a hill that looketh like fire," whatever that may mean. Giles and Rep (c. 1710) mark hills in uncertain positions behind Redbeach. They are named *Rooberg*, *Trouenberg*, *Berg op Reenvell*. They name the east side of this peninsula *Agter Reene Veld*. The east point of Redbeach was named *Redbeach point* by Fotherby (1614). It is wrongly marked *Welcome point* on modern charts.

Englishmen ought to call the bay, known as *Liefde bay* to the Dutch, by its proper English designation *Wiche sound*. So Fotherby named it in 1614, and so it is marked in the Muscovy Company's map (1625). It does not appear on any Dutch map till Doncker's (1655). He names it simply *Oostwyck*. Blaeu (1662) calls it *Oostinwyk*. Valk and Schenk (c. 1662) make a confusion by calling it *Oosterwyk* or *Wijde bay*, a mixture of names copied by Doncker (after 1484) and Van Keulen (1689). Martens (1671) already knew it as *Liefde bay*, but Giles and Rep (c. 1710) were the first so to mark it. Within this bay in its east coast is a cove, named *Muyshaven* on Blaeu's map (1662). Giles and Rep (c. 1710) call it *Liefde Baytje*.

Moffen island, some 10 miles north of the mouth of Wiche sound, is first marked by Doncker (1655), and thenceforward on almost all maps. Colom (c. 1662) alone entitles it *Walrus eylandt*, and misplaces it considerably.

The cape east of the entrance to Wiche sound was named *Castlins point* by Fotherby (1614) and on the Muscovy Company's map (1625). The Dutch had several names for it—*Gruwen hoeck* (Doncker, 1655), *Swarte hoeck* (Blaeu, 1662), *Dorren hoeck* (Colom, c. 1662), *Grawen hoeck* or *Flacke point* (Valk and Schenk, c. 1662; Doncker, after 1684; Van Keulen, 1689), *Derre hoek* (Giles and Rep, c. 1710; Zorgdrager, 1720). The old name *Castlins point* should be restored on English charts.

By whom the long deep sound that follows, as we proceed east, was named, we cannot say, but Fotherby, writing in 1614, states, "This sound is that which formerly had, and still retaineth, the name of *Sir Thomas Smith's inlet*," and so it is marked in the Muscovy Company's map (1625). The Dutch seem always to have called it *Wyde bay*, but their cartographers sometimes confuse it with neighbouring sounds, and write on it the erroneous names *Oosterwyk* or *Way-gat*. The proper English name might be revived, but is rather cumbersome.

A cove in the west side of Wyde bay, near the entrance, is named *Jan Tennisen's bay* by Giles and Rep (c. 1710) and Zorgdrager (1720). The same maps also mark four reefs projecting from the west shore of the sound. On the east shore they mark *Sand Duynen* a little south of the three glaciers. Doncker (after 1684) is the first to mark the great glacier at the south end of the east fiord.

Aldert Dirkses bay was named after the Dutch skipper Albert Dirksensz. It was first marked in Van Keulen's manuscript atlas (c. 1680-90), which Giles and Rep (c. 1710) followed. North of its entrance is *Steyle hoeck*, marked by Van Keulen (1689). Further up comes *Bangen hoeck*, marked by Colom (c. 1662) and Valk and Schenk (c. 1662) in North-East Land by mistake; correctly placed by Van Keulen (1689) and in later maps.

Just north of Bangen hook is *Halfmoon bay*, which modern charts call *Mossel bay*. It is first marked by Goos (1666), and frequently later. Martens (1671) knew of it as *Muscle harbour* or *Deer bay*. Giles and Rep (c. 1710) are the first to name it *Halfmoon* or *Mossel bay*. *Mossel* may be a mistake for *Mussel*, or it

may be the name of some Dutch skipper. There is a Mossel bay in Cape Colony, and another in Magellan Strait.* Gerrits (1613) mentions one Mossel as Van Muyden's second in command in 1612, but corrects the statement in an erratum. The right name is beyond question *Halfmoon bay*.

The land east of Wyde bay is erroneously named 't *Zuyd Ooster Landt* by Doncker (1655) and Van Loon (1661). That was the first Dutch appellation for what is now called *North-East land*.

The important cape between Wyde bay and Hinlopen strait was the English *Point Desire*, probably so named by Marmaduke of Hull in 1612.† It is so marked on the Muscovy Company's map (1625), though rather vaguely as to position. The Dutch seem to have had several names for it. Blaeu (1662) calls it *Langenes*. Colom (c. 1662) marks it twice over, once as *Flacke point* and once as *Verlegen hoeck*. Valk and Schenk (c. 1662) and Doncker (after 1484) are in doubt, and name it *Grawen hoeck* or *Flacke point*. Van Keulen (1689) calls it *Verlegen hook*, Giles and Rep (c. 1710) *Vlakke* or *Verlegen hoeck*, Zorgdrager (1720) *Vlackehoeck*, Scoresby (1820) *Verlegen Hook*. The true name *Point Desire* should be re-established on English charts in place of the *Verlegen Hook* to which they now give currency.

THE EAST COAST.

The north end of *Hinlopen strait* was doubtless known many years before it was marked on the maps, but the map-makers for some time confused Wyde bay with it, marking that *Way-gat*, or indicating as east of Hinlopen strait the land which is actually east of Wyde bay, thus really marking Wyde bay twice over, on a small and larger scale, when they intended to mark Hinlopen strait beyond Wyde bay. Colom's map (about 1662) is thus explained. The strait is believed to derive its name from Thymen Jacobsz. Hinlopen, a director of the Dutch Company in 1617 and later. This would indicate its relatively early discovery. The name *De Straet van Hinloopen* first appears on Blaeu's map (1662), whilst Colom, as above stated, also confusedly marks it at the same time (c. 1662), but names it *Waygat*, and so do Valk and Schenk (c. 1662). The two names *Hinlopen Strait* and *Waygat* were used interchangeably thenceforward down to Scoresby's day (1820) and later. The fact that Blaeu (1662) names it *Straet* proves that his informant, at least, knew that it was not merely a deep bay. Doncker (1663) first marks it and some of its side bays with an approach to general truth of form. Yet Martens in 1771 writes, "It is unknown whether the haven of this Weigatt (blow-hole) goeth through the country or no."

The first creek in the west coast of the strait, a little south of Point Desire, is named, on the large and small maps of Giles and Rep (c. 1710), *Willem Tolks* or *Tolckx baaytje*. I have a note that the name is also spelt *Volckx*, but have lost the reference. The creek is not marked on modern charts.

Near it, and likewise not marked on our charts, is an island (or rocks), between Point Desire and Treurenburg bay, first indicated as *Riff* by Blaeu (1662), and

* Marked on the Mercator-Hondius map of 1633 between Port Famine and Cape Froward. The Mossel bay in Cape Colony was named in 1601 by the Dutch from the mussels they found there.

† See the Hakluyt Society's "Baffin," p. 96, and above, p. 50.

later marked *Luyzen Eyland* by Doncker (after 1684) and his copyists. Doncker, in 1663, knew it by name, but marked it by mistake in the mouth of Wyde bay.

Treurenburg bay, made famous by Parry's Arctic expedition, may have derived its name from the catastrophe which happened to the Dutch whalers there in 1693. Before that date it is systematically named *Bear bay* (Beere bay) on almost every Dutch map from 1662 downward. *Treurenburg* first appears on the Giles and Rep map (c. 1710) as the name of a hill west of the bay, the bay itself having no name. Afterwards we find it called *Treurenburg* or *Sorge bay*.

Parrot hook, named after "the diving parrot or puffin," is first clearly marked by Giles and Rep (c. 1710) as a point north of the great glacier whose front fills so long a stretch of coast north of Lomme bay. It is in approximately 79° 53' N. lat.

With *Lomme bay* we reach a region where the nomenclature is very confused. Evidently knowledge of the topography of Hinlopen strait was gained partly by ships sailing down from the north and partly by others sailing up from the south. The former knew Lomme bay; the latter became familiar with Unicorn bay. The third bay between them was mistaken in each case for the other bay to north or south, so that on the early charts only two bays are marked. Thus both *Treurenburg* and Unicorn bays are sometimes marked Lomme bay by mistake. The three bays were not all plainly marked together till on the Giles and Rep maps (c. 1710), and it is possible that Giles in 1707 was actually the first skipper to sail in at one end of Hinlopen strait and out at the other, and thus to behold the three bays in succession. Lomme bay owes its name to part of this long-continued misunderstanding. It is derived from *Lommeberg*. The true Lommeberg was a hill south of Unicorn bay—that is to say, it stood at the north-east corner of Barents island. But when Unicorn bay was confused with Lomme bay, Lommeberg was moved north with it, and the name was applied to the modern *Lovens mount*. So confused were Giles and Rep about Lommeberg that they mark it three times over, north and south of Lomme bay and south of Unicorn bay. Puzzled likewise about the bays, they call Lomme bay "Lomme bay or Beere bay," and they call Unicorn bay "Lome bay or the Unicorn's bay."

Duym or *Thumb point* is marked by Giles and Rep (c. 1710) as a cape about 12 miles south-east of the entrance to Lomme bay, and anchorages are marked north and south of it. It is north of the series of glaciers descending to the sea south of Lomme bay. Modern charts mark *Thumb point* as the east extremity of William island. It should be much further north. About here Blaeu (1662) vaguely marks a *Vlacke hoeck*.

Unicorn bay, at the east entrance to Heley sound, was named after a ship. It is marked by Doncker (1663) as 't *Schip d'Eenhoorn baij*. Thenceforward the name was marked on many maps.

Heley sound, seen and named in 1617 after William Heley, the English supercargo, was evidently then known or suspected to be a strait. The fact was presently forgotten, though about 1662 there seems to have been a suspicion for a short time that it might be the south end of Hinlopen strait (*vide* Blaeu's map). Not till about 1860 was the truth about it known. Yet *Helies* or *Helis sound* was marked upon most maps, from the Muscovy Company's (1625) down to Scoresby's (1820), always as a creek leading north out of the head of Wybe Jans water. Nineteenth-century writers (Lamont, for instance) sometimes call it *Hell sound*. Poor Heley!

Passing through Heley sound, we come to the great bay or arm of the sea lying

between Spitsbergen on the one hand and Barents and Edge islands on the other. Whether its English discoverers gave it a name we cannot say. Was this the *Pudding bay* or *Hunting bay* named in the English list of 1658? The Dutch always knew it as *Wybe Jans water*, after the Friesland skipper Wybe Jansz. van Stavoren. The name first appears on Goos' map (1620). We find it written by Guérard (1628) *Destroit de Jean Suatre*. Carolus (1634) and many others after him call it *Wybes gat*. The Russian Trappers' name for it was *Titowa Guba*. It is called *Stor fiord* by modern Scandinavians.

No old charts show the eastward bend of the upper part of Wybes Jans water, but, as above remarked, make it end off square, with Heley sound running north out of it. To right and left of the entrance to Heley sound all charts, from the Muscovy Company's (1625) down to Scoresby's (1820), mark two islands; and these, after Valk and Schenk (c. 1662), are named—the west island *Walrus island*, the east island *Robbe* or *Seal island*. It is impossible to identify these two islands now. Some think that at least one of them may be enveloped by the *Negri glacier*. But, regard being had to their position relative to Heley sound on the Muscovy Company's map, and to the fact that the English explorers of 1617 doubtless passed between them on their way to Heley sound, they are most probably identical with the *Lamont* and *Angel* islands of modern charts.

Two bays are marked near together on the Muscovy Company's map (1625) at the north-west corner of Wybe Jans water. They correspond with the bays north and south of the *Negri glacier*. On the Muscovy Company's map the north bay is named *Wiches sound*, the south bay *Wiches bay*. Wiches sound was always called *Bear gat* (*Beere gadt*) by the Dutch after Valk and Schenk (1662) had written that name down. That name should replace the *Johnston bay* of modern charts. The Dutch confused the name of Wiches bay, writing it *Whales Wiches bay* (Doncker, 1655 and later) or *Whales Withes bay*, but modern charts preserve it correctly.

The *Mohn bay* of modern charts should be called by its old name *Keer Weer*, which Valk and Schenk (1662) first wrote down and later Dutch charts generally recorded.

The point north of *Agardh bay* is marked *Fox nose* on the Muscovy Company's map (1625), and is still known as *Fox ness*.

Foul sound is the almost universal name on old charts, from the Muscovy Company's (1625) down to Scoresby's (1820), for the bay now known as *Agardh bay*. Blaeu (1662) calls it *Baij met Vuijlerdsen*. There are too many "Foul" bays and sounds in Spitsbergen, so that the Swedes did well to rename this one.

Whales head, the cape just north of Whales bay, was so named on the Muscovy Company's map (1625), and no other name has ever been given to it.

Whales bay is marked on the Muscovy Company's map (1625), but not named. It is also indicated, unnamed, by Middlehoven (1634) and Blaeu (1662). The latter adds two glaciers north of it. The name first appears on modern charts, upon what authority I cannot discover.

A wreck, an island, or a bay in the south part of the east coast, a little north of the south cape, is named on Blaeu's map (1662) *† Hol van een Schip*.

We have thus completed the circuit of the coast of the main island, and returned to *Cape Lookout* at its south extremity, where we started. We have next to examine the names round the coasts of the other islands.

BARENTS ISLAND.

This was not known to be an island, and therefore not named before the middle of the nineteenth century. Giles and Rep (c. 1710) by a blunder wrote *Zuyd Ooster Land* on the place it occupies, and the name was repeated by Zorgdrager (1720) and Scoresby (1820).

Lommenberg, as above stated, is the hill at the north-east corner of Barents island. It was first marked by Doncker (1663), and afterwards by Goos (1666), Van Keulen (1689), and others.

Cape Barkham, at the south-west corner of the island, is named on the Muscovy Company's map, and the name has never been changed, though sometimes misspelt *Barcam*.

The bay in the west coast of Barents island is first marked *Vosse bay* by Valk and Schenk (1662), and the name has since retained its place on the map.

FREEMAN STRAIT.

Alderman Freeman's inlet was the name given in 1616 or 1617 to the sound separating Barents and Edge islands. It is so marked on the Muscovy Company's map (1625). Sir R. Dudley (1630) calls it *G. di Barsam* (for *Barcam*). The Dutch maps, from Valk and Schenk's (1662) downward, systematically name it *Walter Thynen's fiord*. Modern charts preserve both names, but *Freeman strait* should have the precedence. Some little islands at its west mouth are named *Sir Thomas Smith's islands*. Of all the Spitsbergen sites named after this leader of the Muscovy Company, this is the only one from which his name has not been removed.

EDGE ISLAND.

Its south coast was first rudely marked by Carolus in 1614. He misnamed it *Morfyn*, meaning thereby *Marsyn*, by mistake for *Matsyn*. Carolus thought that the land he saw was Willoughby's *Matsyn*, really in *Novaja Zemlja*, but misplaced by Hondius (1611). The island was rediscovered and named *Edge island* in 1616. It is marked *Edges Iland* on the Muscovy Company's map (1625), *Beare Iland* by Sir R. Dudley (1630). In the Dutch Company's charter of 1634 it is called *Staaten Land*. Valk and Schenk (1662) name it *Whales Wiches Landt* by some freak. Giles and Rep (c. 1710) are responsible for introducing a new confusion by naming it *Stans Voorland*, a blunder perpetuated by Zorgdrager (1720) and the Scandinavians. The real *Stone Foreland* will be presently explained. The Russian trappers called this island *Maloy Brun*.

Lee Foreland; Stone Foreland.—The Muscovy Company's explorers in 1616 and 1617 only saw the west part of Edge island, and its north and south coasts trending away to the eastward. They named the north coast *Lee Foreland*, the south coast *Stone Foreland*. We shall consider the latter name presently. On the Muscovy Company's map (1625) *Cape Blank* is marked as the west extremity of *Lee Foreland*, and this meaning of the names seems to have been preserved down to about 1662, as is very clearly shown on Colom's map (c. 1662). Then the names get adrift, first on Valk and Schenk's map (1662). At last, on Doncker's map (after 1684), *Lee Foreland* becomes definitely the cape named *C. Lee* on modern charts, whilst *C. Blanko*, drifting south, attached itself to the first cape it

came to. This arrangement was stereotyped by Van Keulen (1689) and has since been maintained.

Duke's cove was the name of a bay in the west coast of Edge island. It is written in the form *Duckes Coue* on Sir R. Dudley's map (1630), which contains several features in the west coast of Edge island that seem to be derived from English sources and yet are not found on the Muscovy Company's map (1625). It follows that they must have been taken from the Hull men's discoveries. *Duckes Cove* is included in the English official list of 1658. The name *Duke's cove* was perhaps derived from Marmaduke of Hull, the chief explorer and early frequenter of these parts. He is often referred to as Duke. Probably the English *Duckes Cove* became *Dusko* in Dutch mouths. That name first appears on Doncker's map (1663), applied to a point on the west coast of Edge island, and frequently afterwards. Scoresby (1820) is the first to misspell it *Disco*. The real Spitsbergen *Disco* was further east. *Duke's cove* may have been the *Disco bay* or the *Gotha cove* of modern charts. According to Dudley's map (1630), it was sheltered by an island and a reef. The *Hunting bay* of the English official list of 1657 was probably the modern *Disco bay*.

The south-west extension of Edge island is split into two great promontories by Decrowe sound. These promontories end in the capes *Whales point* and *Negro point*. They were first rudely depicted by Carolus (1614) and named *Onbekende Kust* and *Morfyn* respectively. The Muscovy Company's map (1625) first shows them with a rough veracity, and gives them the names they have since retained, *Whales head* and *Negro point*. Early Dutch charts show them far less truthfully, separating them widely, the west point being nameless, the other named *Swarte-hoeck*. *Whales head* is named *Athale head* by Sir R. Dudley (1630). The first Dutch map on which *Whales head* is marked is Doncker's (1655), after which it is commonly found.

Deicrowe's sound was named, in 1616, after Benjamin Decrowe, who, in 1610 and afterwards, was a leading man in the Muscovy Company. The name is marked on the Muscovy Company's map (1625). On Sir R. Dudley's (1630) the bay is called *G. Athale*. Middelhoven (1634) names it *Londen bay*. Doncker (1655) is the first Dutch map-maker to mark it *Deicrowe's sound*, adding the alternative name *Deeve bay*. The two names have lingered on together ever since, sometimes tending to separate, and then coming together once more.

A cove near the mouth of Deicrowe's sound, a little north of *Negro point*, is named *Bear haven* on the Muscovy Company's map (1625). It is the *Barem bay* of modern charts.

Negro point was named by the English in 1616. The Dutch translated it *Swarthoeck*, and that name already appears on Goos' map (1620), and generally thenceforward. Middelhaven (1634) alone records against it the designation *Dictus point*, whatever that may mean.

Blaeu (1662) marks *St. Jacob bay* opposite *St. Jacob island*. If that island was, as it appears to have been, Halfmoon island, the bay in question must have been the same as the modern *Diana bay*. But as Blaeu marks his bay east of the glacier, which he calls *De groote Ysbergh*, and as the great *King John glacier* is the only one that reaches the sea hereabouts, Blaeu's *St. Jacob bay* would seem to have been away to the eastward, approximately where it is marked on modern charts.

Stone Foreland, as already stated in connection with Lee Foreland, is really the eastward extension of the south-east coast as seen from the south-west. It is marked on the Muscovy Company's map (1625) and thenceforward, the Dutch

spelling it *Stans Voorland*. The name is now correctly applied to the south-east cape, as Lee Foreland should be applied to the north-east cape. Zorgdrager (1720) was the first to move the name away from the coast and apply it to Edge island as a whole, thus misleading the Scandinavians.

Giles and Rep (c. 1710) mark *Disco* just south of the east cape of Edge island. A little south-west of it they mark *Visschery van Walvisschen*. Zorgdrager (1720), and Scoresby (1820), in text and maps, repeat these indications.

Round the south of Edge island are a number of smaller islands, which may be the *Plurime Insille* identified with Willoughby's Matsyn by Hondius (1611). They are first distinctly marked by Carolus (1614), who indicates a shoal to the east of one, perhaps intended for Halfmoon island or even Hope island. Some Dutch charts give names to some of these islands, but only *Halfmoon island* can be identified with reasonable certainty. It is the *Abbots I.* of the Muscovy Company's map (1625), the *St. Jacob* of Blaeu (1662). Doncker (1663) first marks it *Halvemaens eyl.*, and his example was commonly followed by later map-makers. Valk and Schenk (1662) were the first to indicate a great vague mass of islands stretching round the coast, which they and most later map-makers describe as *Laeg gebroken Land*. I think it was Scoresby who replaced this description by the popular name the *Thousand islands*—a name in no wise corresponding with facts. They appear to be the *Hopeless islands* of Sir R. Dudley's map (1630).

The *Ryk Yse islands*, discovered by the Dutch skipper of that name in 1640, were confused by Scoresby with Wiche islands. Doncker (1663) is the first to mark them, which shows how the map-makers lagged behind in their information, preferring to copy one another rather than to obtain new information from the skippers themselves.

Hope island, discovered in 1613, probably by Marmaduke of Hull, and named by him after his own ship the *Hopewell*, is marked on the Muscovy Company's map (1625) and almost all later maps. The name has escaped change.

WICHE ISLANDS.

This group of islands, vaguely and wrongly marked, evidently from hearsay only, on the Muscovy Company's map, were seen and named by the English in 1617, probably from the Lommeberg near Heley sound on Barents island.

SMITH'S OR NORTH-EAST LAND.

The south point of this was sighted by the English in 1617, apparently from the same point and at the same time as Wiche islands. They named it *Sir Thomas Smyth's Iland*, and its south part is so marked on the Muscovy Company's map (1625). Blaeu (1662) gives the name *Oostlandt* to all the land east of Hinlopen strait, and writes on it *Dit zijn alte mael Eylanden*. Valk and Schenk (1662) call this region *Nieuw Vriesland*, a name which Giles and Rep (c. 1710) transfer elsewhere. Doncker (1663) first marks Smith's Land with more distinctness, indicating its north and west coasts and separating it from the Seven islands. It is a little more decidedly indicated by him in a later map (after 1684), and similarly by Van Keulen (1689). Giles and Rep (c. 1710) are the first to represent it with approximate truth, and name it *Het Noord Ooster Land*. Zorg-

drager (1720) follows them. Martens (1671) knew as "the South-West Land" all the land east of Hinlopen strait. The old name *Smith Land* has been tentatively revived on late editions of the Admiralty chart.

Even Giles and Rep's maps (1710) are very vague about names in this region, and those they give cannot always be identified with definite points. Still less can we be sure which were the points intended to be defined on the Muscovy Company's chart (1625) by the names *Deicrowe's Desire* (a cape), *I. Purchas plus ultra* (an island), and *Point Purchas*. Probably, as Hakluyt headland was the name given by the English to the extreme north-west point of Spitsbergen as a whole, *Point Purchas* was the extreme north-east point seen by them, and corresponds therefore to the North cape of Smith Land. *Purchas plus ultra island* will then be Low island, and *Deicrowe's Desire* the modern Shoal point.

The *Illuys haven* marked by Giles and Rep (c. 1710) apparently corresponds with the North bay of the modern *Murchison bay*.

The low promontory called *Great Stone Land* takes its name from the *Groote steen* marked by Giles and Rep apparently close to the *Marble point* of our charts. The west extremity of Great Stone land is mentioned by Martens (1671) as *Shoal point*. It is probably the old *Deicrowe's Desire* above referred to.

Low island must be the *Purchas plus ultra I.* of the Muscovy Company's map (1625). It is 't *Lage ey.* of Giles and Rep (c. 1710).

Brandywine bay was well known to the old Dutch whalers, and doubtless occupied the position of *Brandy bay* on our charts. Doncker (1663) first marked it, and it is often found on later maps. *Hoepstock bay* came further on, according to Zorgdrager's text (1720); it will have been the *Bird bay* of modern charts. If named after Mathys Jansz. Hoepstock, a Dutch skipper who was in Spitsbergen in 1616, it must have been an early discovery. The whole of this coast, however, was probably visited long before the map-makers took notice of it. In 1618 an Enkhuizen skipper is said to have identified the Seven islands (Muller, N. Co., p. 180). Can this man have been Hoepstock?

Point Purchas was doubtless the North cape of Smith Land, or rather the north cape of an island just separated from Smith Land by a narrow strait. The Dutch, according to Muller (N. Co., p. 180), called it *Cape Tabin*, and in 1624 sent a ship to try and sail beyond it, but without success. Giles and Rep (c. 1710) name it *Uyterste hoek* or *Uyterste Land*. Scoresby (1820) knew it as *Black point*. The name *Point Purchas* or *Cape Tabin* should be restored to it.

If the *Seven islands*, as claimed, were seen in 1618, it was long before they appeared in any map. Doncker (1663) was the first to introduce them, and he was copied by Goos (1666) and others. Martens saw them in 1671, when they were well known. Doncker (after 1684) introduces confusion by marking, further north and separate from them, two larger islands, which he names *Hooybergh* and *Taaffelberg*. We cannot now identify them. They recur on old maps after Doncker. Giles and Rep (c. 1710) were the first to put the Seven islands into approximately their right position, with *Hooyberg* and *Tafelberg* amongst them—the two west islands. They also mark *Klip* and *Ambel't* as others of the group. Phipps (1773) did something to improve the representation of the group, and added *Walden island* to the map.

Vlak island, marked by Giles and Rep (c. 1710), seems to be the *Scoresby I.* of our charts. Their *Reene Eyl*, marked with an anchorage to the east, may be the modern *Cape Platen*. They also were the first to mark and name *Outgar Rep island* after one of themselves, and *Walrus island*, probably the *Foyns Ö* of

Nathorst's map. Their *Duyve* (dove) bay, at the north-east corner of Smith Land, is not identifiable.

Just off the north-east point of Smith Land, the modern *Cape Leigh Smith*, Giles, in 1707, discovered the island marked on his and Rep's map *Een Groot hoog Eyland*; and away to the east Giles sighted the large island which he proudly named *Commandeur Giles Land*, and of which he wrote on the Giles and Rep chart *ontdekt 1707 is hoog Land*.

Though he circumnavigated Smith Land, he named no other points except the south cape, which he called *de Zuyd hoek*, a name that has been well replaced in our own days by that of *Cape Torell*.

APPENDIX.

[State papers, Domestic, Interregnum, vol. 179, January, February, 1658, No. 11 (2).]

The following list is annexed to a report of a discussion relative to whaling matters held in the Council of State on December 14, 1657 :—

“THE NAMES OF THE SEVERALL HARBORS IN GREENLAND, AND THE DEGREES OF
LATITUDE.

	Degrees.
Point Looke Out being in the height of	76 $\frac{1}{2}$
Hornesound and Mottle Bay	77
Bell Sound and Bottle Cove	77 $\frac{1}{2}$
Greenharbor and Port Nick	78
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Point Lookout is South cape. Mottle bay is a cove in the south side of Horn sound. Bottle cove (Willem van Muyen's haven) is identified from Pellham's "God's Power and Providence" as a cove open to the south-west in the north shore of Bell sound, outside Axel island. Port Nick is Safe haven. Osborne inlet is

St. John's bay. Cove Comfortless is English bay. Fowl sound is Foreland sound. Deere sound is King's bay. Crookehaven may be Hamburger bay. Knotty point is a point between Hamburger bay and the South gat. Foxes point is Flat hook. Sir Thomas Smith's bay is the north end of Foreland sound. I cannot identify Pudding bay (in Wybe Jans water). Deicrowes bay is in Edge island; so is Duke's cove. Hunting bay is probably the Disco bay of modern charts in the west coast of Edge island.

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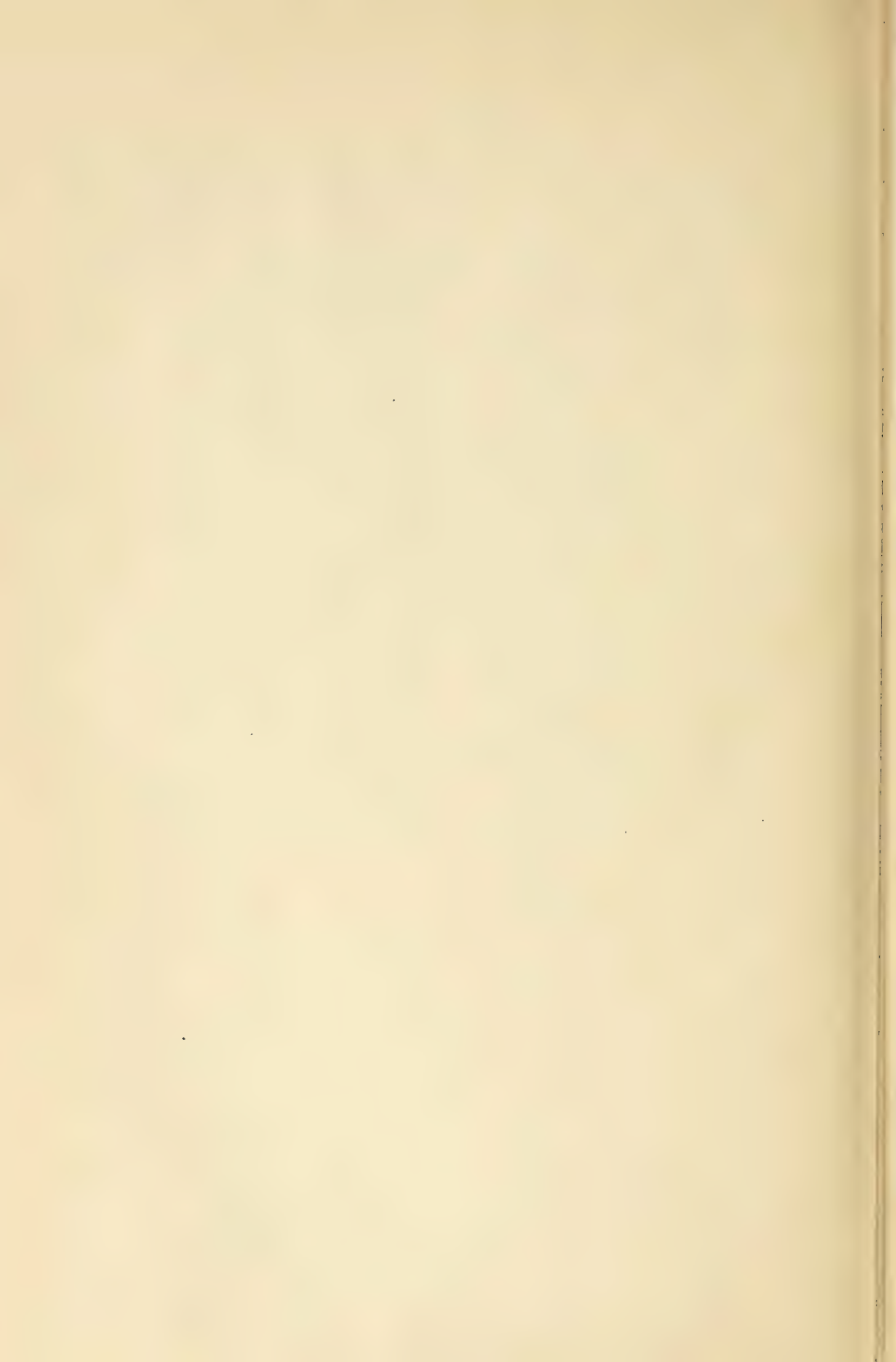
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LIST OF GEOGRAPHICAL WORKS BY THE
SAME AUTHOR.

Climbers' Guide to the Pennine Alps, 2 vols., London, 1890,
1891, and other Alpine Climbers' Guides.

Climbing and Exploration in the Karakoram-Himalayas;
London, 1894.

The Alps from End to End; London, 1895.

The First Crossing of Spitsbergen; London, 1896.

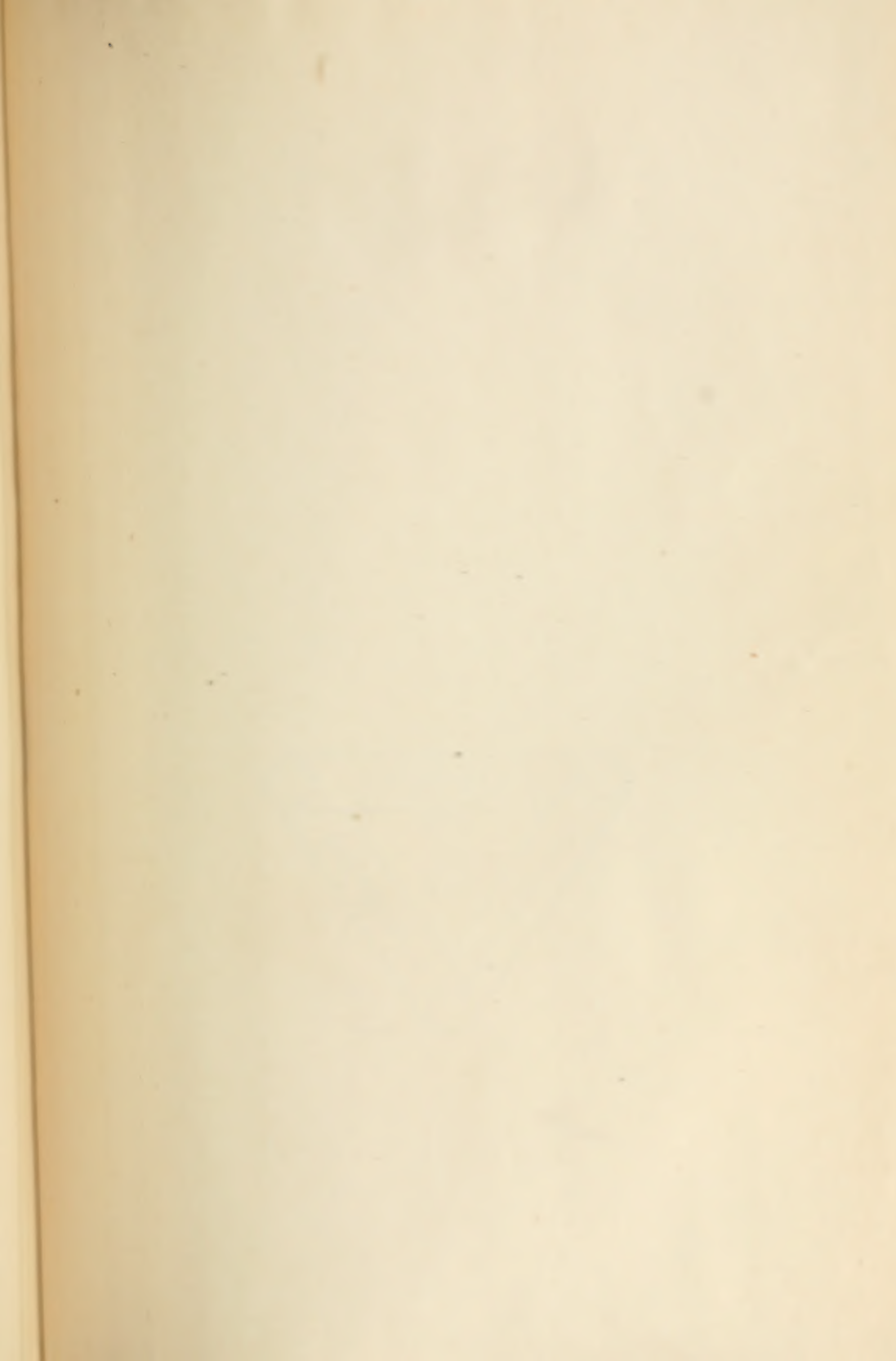
With Ski and Sledge over Arctic Glaciers; London, 1898.

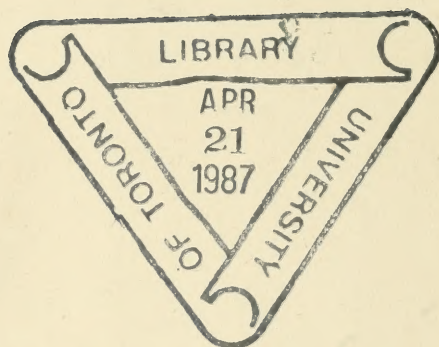
The Bolivian Andes; London, 1901.

Aconcagua and Tierra del Fuego; London, 1902.

The Alps; London, 1904.

Early Dutch and English Voyages to Spitsbergen; London
(Hakluyt Society), 1904.





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